STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	1. WELL NAME and NUMBER: NBU 921-8D
2. TYPE OF WORK: DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )	3. FIELD OR WILDCAT: NATURAL BUTTES
4. TYPE OF WELL: Gas Well Coalbed Methane Well: NO	5. UNIT or COMMUNITIZATION AGREEMENT NAME: NATURAL BUTTES
6. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. OPERATOR PHONE: 720 929-6587
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217	9. OPERATOR E-MAIL: mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UTU 0149767 — 11. MINERAL OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )	12. SURFACE OWNERSHIP: FEDERAL ( ) INDIAN (●) STATE ( ) FEE ( )
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN'): Ute Tribe — 18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES (●) (Submit Commingling Application) NO ( )	19. SLANT: VERTICAL (●) DIRECTIONAL ( ) HORIZONTAL ( )

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	469 FNL 652 FWL	NWNW	8	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	469 FNL 652 FWL	NWNW	8	9.0 S	21.0 E	S
At Total Depth	469 FNL 652 FWL	NWNW	8	9.0 S	21.0 E	S

21. COUNTY: UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet): 469	23. NUMBER OF ACRES IN DRILLING UNIT: 777
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 1000	26. PROPOSED DEPTH: MD: 10700 TVD: 10700
27. ELEVATION - GROUND LEVEL: 4669	28. BOND NUMBER: WYB000291	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Danielle Piernot	TITLE Regulatory Analyst	PHONE 720 929-6156
SIGNATURE	DATE 09/11/2009	EMAIL danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047507330000

APPROVAL

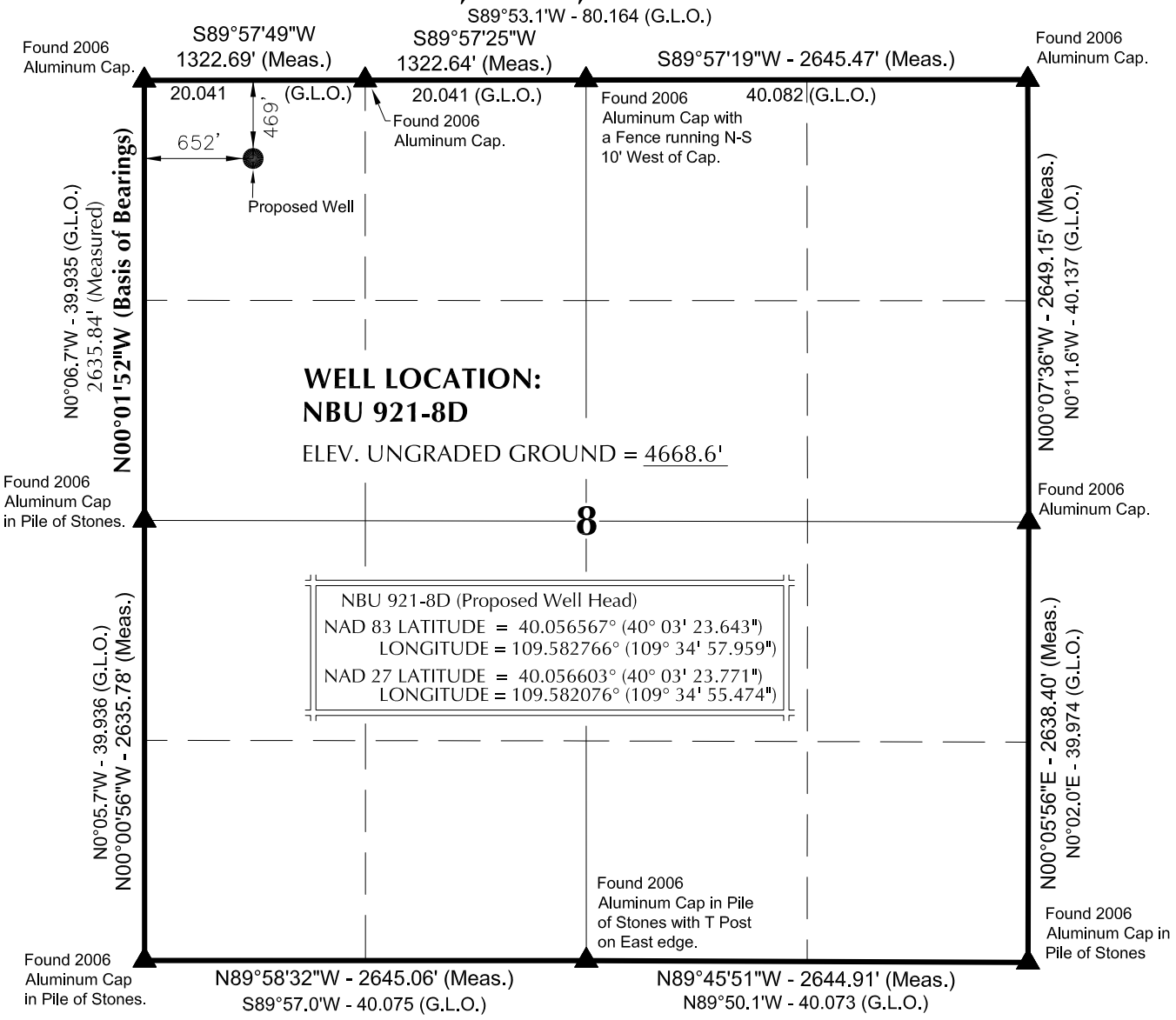
Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	10700		
Pipe	**Grade**	**Length**	**Weight**			
	Grade HCP-110 LT&C	1100	11.6			
	Grade I-80 Buttress	9600	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2840		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2840	36.0			

’APIWellNo:43047507330000’

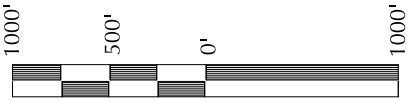
T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. Bearings are based on Global Positioning Satellite observations.
4. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR No.362251 KOLBY R. KAY STATE OF UTAH

REGISTERED LAND SURVEYOR
REGISTRATION NO. 362251
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-8D

NBU 921-8D
WELL PLAT
469' FNL, 652' FWL
NW ¼ NW ¼ OF SECTION 8, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-11-09	SURVEYED BY: D.J.S.	SHEET NO: 1
DATE DRAWN: 04-13-09	DRAWN BY: E.M.S.	1 OF 9
SCALE: 1" = 1000'	Date Last Revised:	

NBU 921-8D
Surface: 469' FNL 652' FWL (NW/4NW/4)
Sec. 8 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0149767

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,824'	
Birds Nest	2,133'	Water
Mahogany	2,640'	Water
Wasatch	5,310'	Gas
Mesaverde	8,446'	Gas
MVU2	9,459'	Gas
MVL1	9,976'	Gas
TD	10,700'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,700' TD, approximately equals 6,666 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,312 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

’APIWellNo:43047507330000’

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	September 10, 2009
WELL NAME	**NBU 921-8D**	TD	10,700' MD/TVD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 4,668'
SURFACE LOCATION	NW/4 NW/4 469' FNL 652' FWL	Sec 8 T 9S R 21E	BHL Straight Hole
	Latitude: 40.056567	Longitude: -109.582766 NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), Ute Tribe (SURFACE), UDOGM, Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
All water flows encountered while drilling will be reported to the appropriate agencies.					
	Green River @	**1,824'**			
	Top of Birds Nest Water @	**2,133'**			
	Mahogany @	**2,640'**			
	Preset f/ GL @	**2,840' MD**			
	Note: 12.25" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.				
Mud logging program TBD Open hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# HCP-110 & I-80 or equivalent BTC/LTC casing	Water/Fresh Water Mud 8.3-12.2 ppg
	Wasatch @	**5,310'**			
	Mverde @	**8,446'**			
	MVU2 @	**9,459'**			
	MVL1 @	**9,976'**			
	TD @	**10,700'**			Max anticipated Mud required 12.2 ppg

'APIWellNo:43047507330000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2840	36.00	J-55	LTC	0.79*	1.52	4.43
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9600	11.60	I-80	BTC	1.75	1.04	2.75
								10,690	8,650	279,000
		9600	to	10700	11.60	HCP-110	LTC	2.41	1.27	26.88

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 1.97

1) Max Anticipated Surf. Press.(MASP) (Surf Csg) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac grad x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,312 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,666 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,340'	Prem cmt + 16% Gel + 10 pps gilsonite	260	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,810'	Premium Lite II + 0.25 pps celloflake +	460	40%	11.00	3.38
			5 pps gilsonite + 10% gel '+ 1% Retarder				
	TAIL	5,890'	50/50 Poz/G + 10% salt + 2% gel	1440	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint for a total of 15 bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

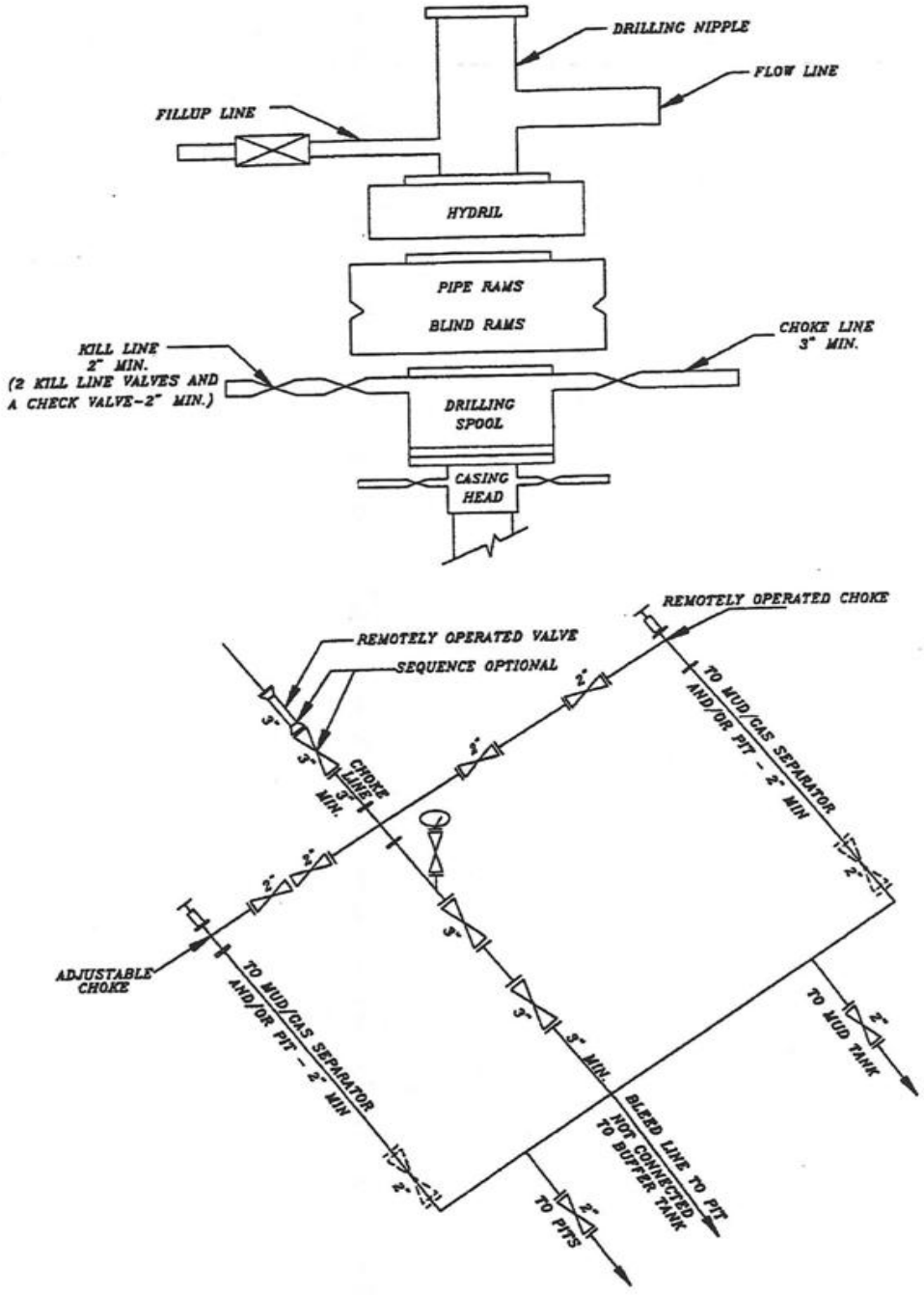
Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

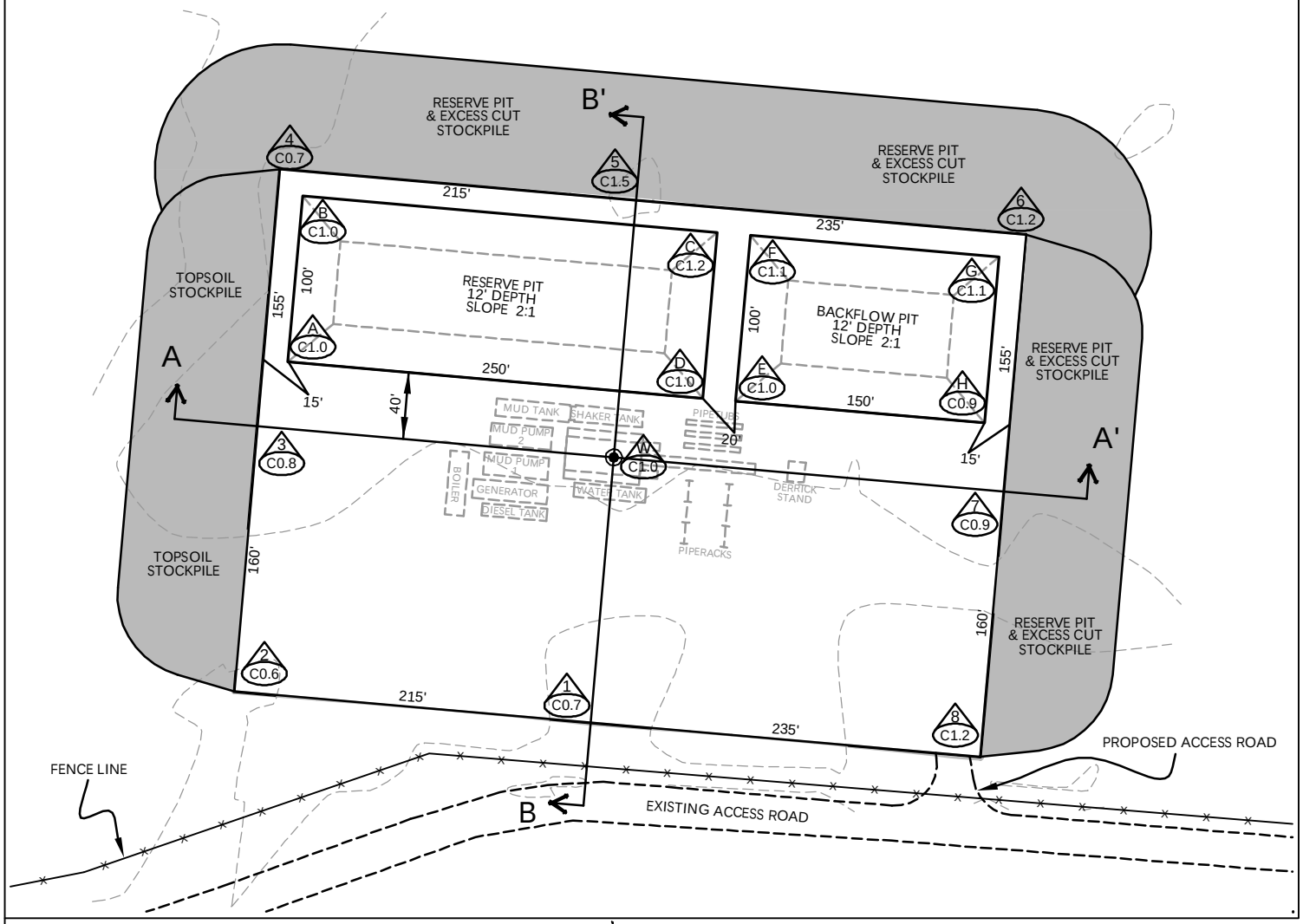
DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 921-8D



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



WELL PAD LEGEND

- WELL LOCATION
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED CONTOURS (1' INTERVAL)

WELL PAD NBU 921-8D QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4,668.6'
FINISHED GRADE ELEVATION = 4,667.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 261 C.Y.
TOTAL FILL FOR WELL PAD = 0 C.Y.
TOPSOIL @ 6" DEPTH = 2,654 C.Y.
EXCESS MATERIAL = 261 C.Y.
TOTAL DISTURBANCE = 3.29 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 15,900 BARRELS
BACKFLOW PIT VOLUME
+/- 4,350 CY

HORIZONTAL 0 50 100 1" = 100'
1' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

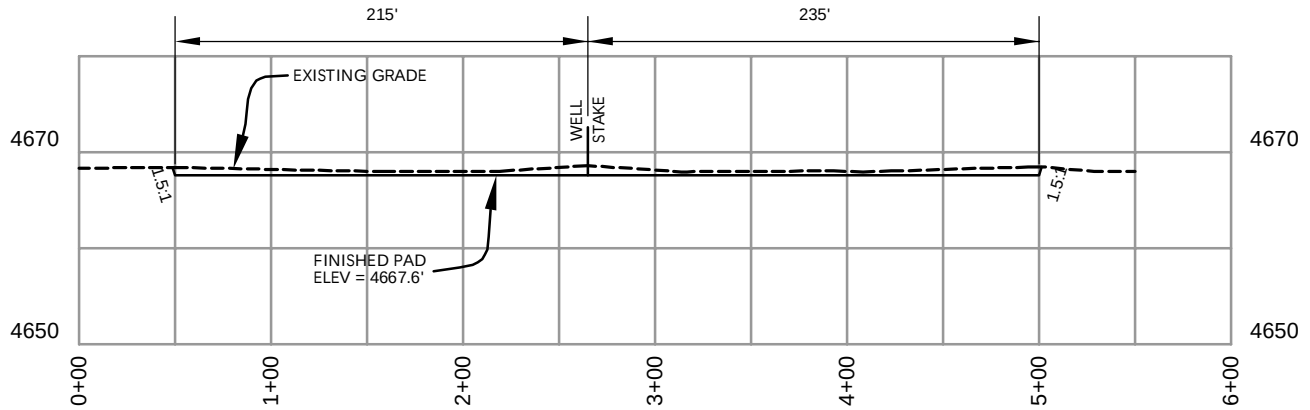
WELL PAD - NBU 921-8D

WELL PAD - LOCATION LAYOUT
NBU 921-8D
469' FNL, 652' FWL
NW1/4 NW1/4 OF SECTION 8, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

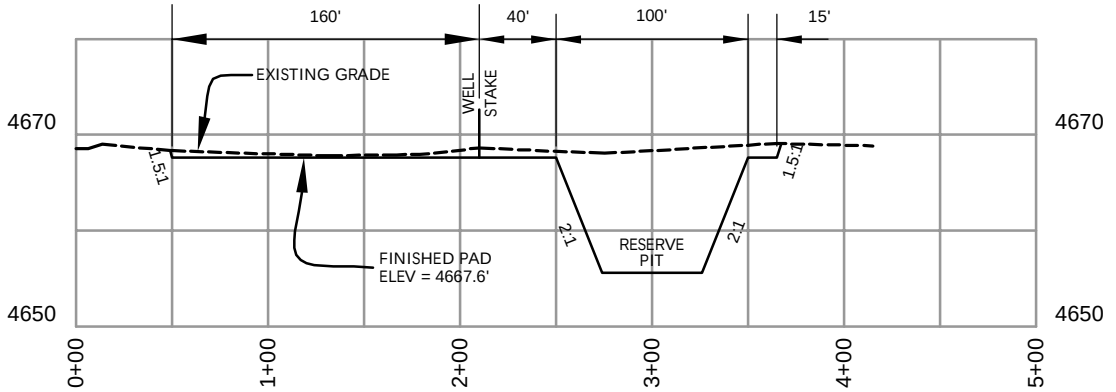
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100' | Date: 4/15/09 | SHEET NO: 2 2 OF 9
REVISED:

TIMBERLINE ENGINEERING & LAND SURVEYING, INC. (435) 789-1365
209 NORTH 300 WEST - VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-8D

WELL PAD - CROSS SECTIONS
NBU 921-8D
469' FNL, 652' FWL
NW1/4 NW1/4 OF SECTION 8, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Scale: 1"=100' | Date: 4/15/09 | SHEET NO: 3 3 OF 9
REVISED:

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

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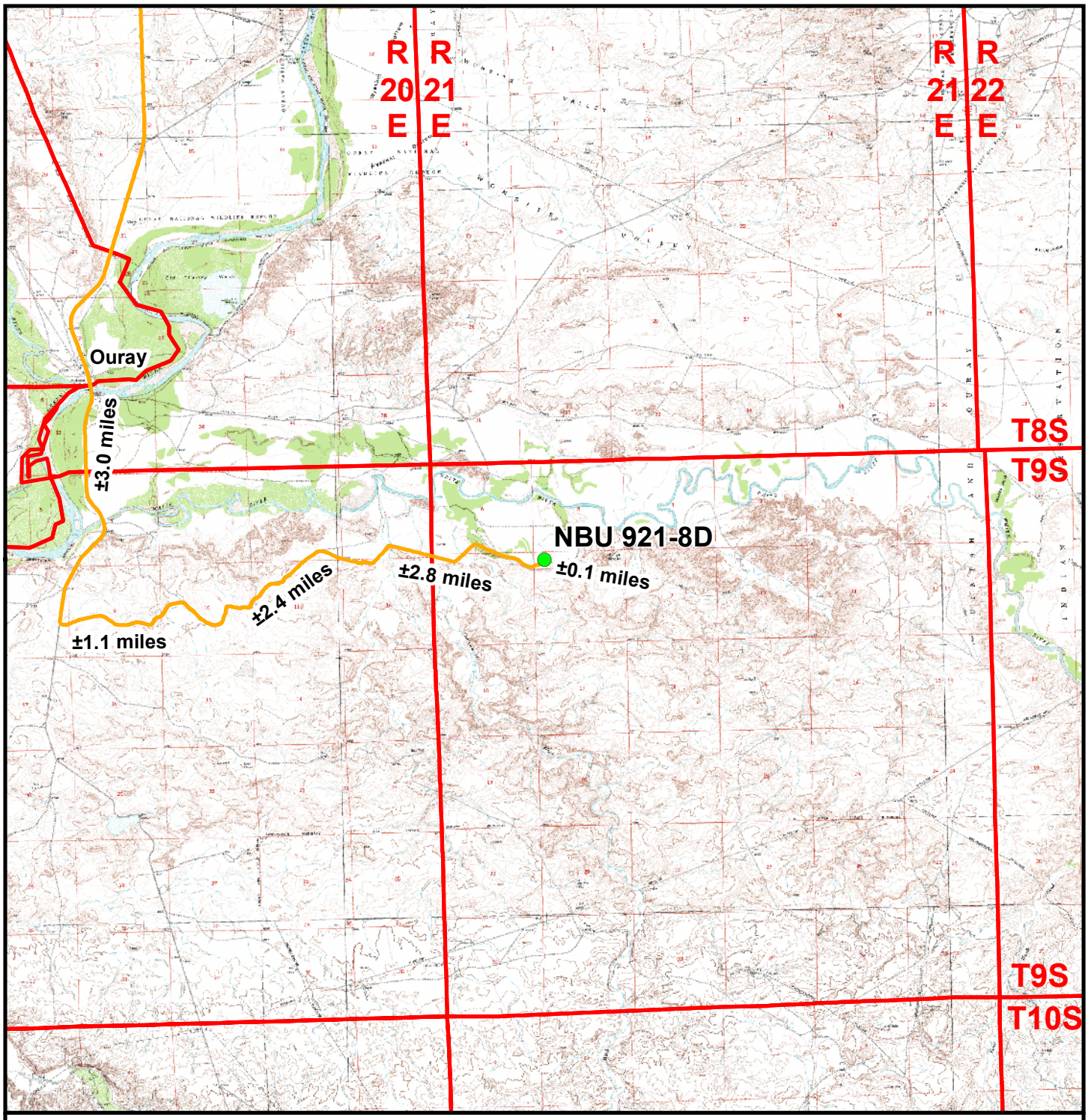


Legend

- Proposed NBU 921-8D Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

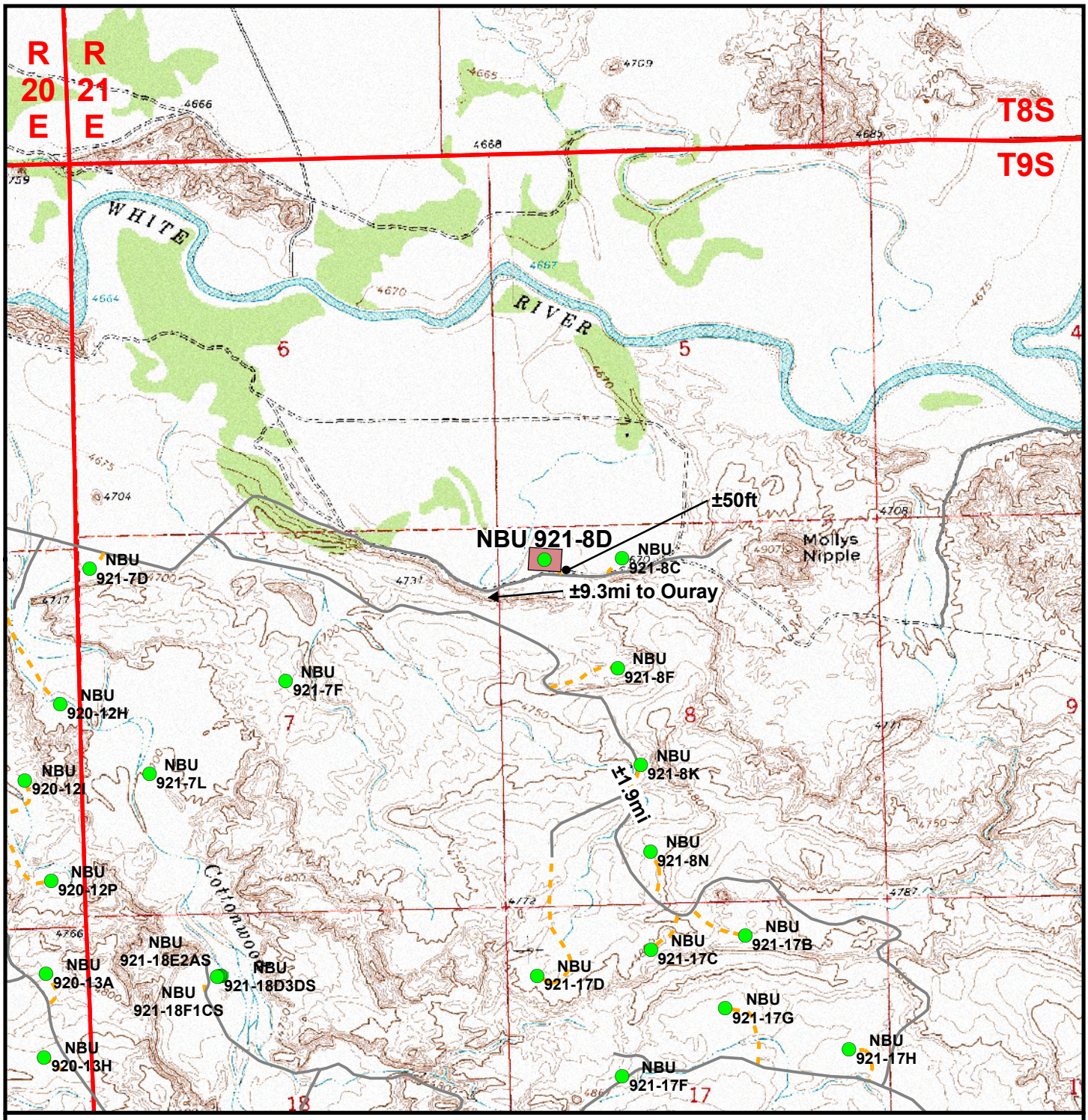
Well Pad - NBU 921-8D
NBU 921-8D
Topo A
469' FNL, 652' FWL
NW¼ NW¼, Section 8, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 5	5 of 9
Drawn: JELo	Date: 20 April 2009		
Revised:	Date:		

’APIWellNo:43047507330000’



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

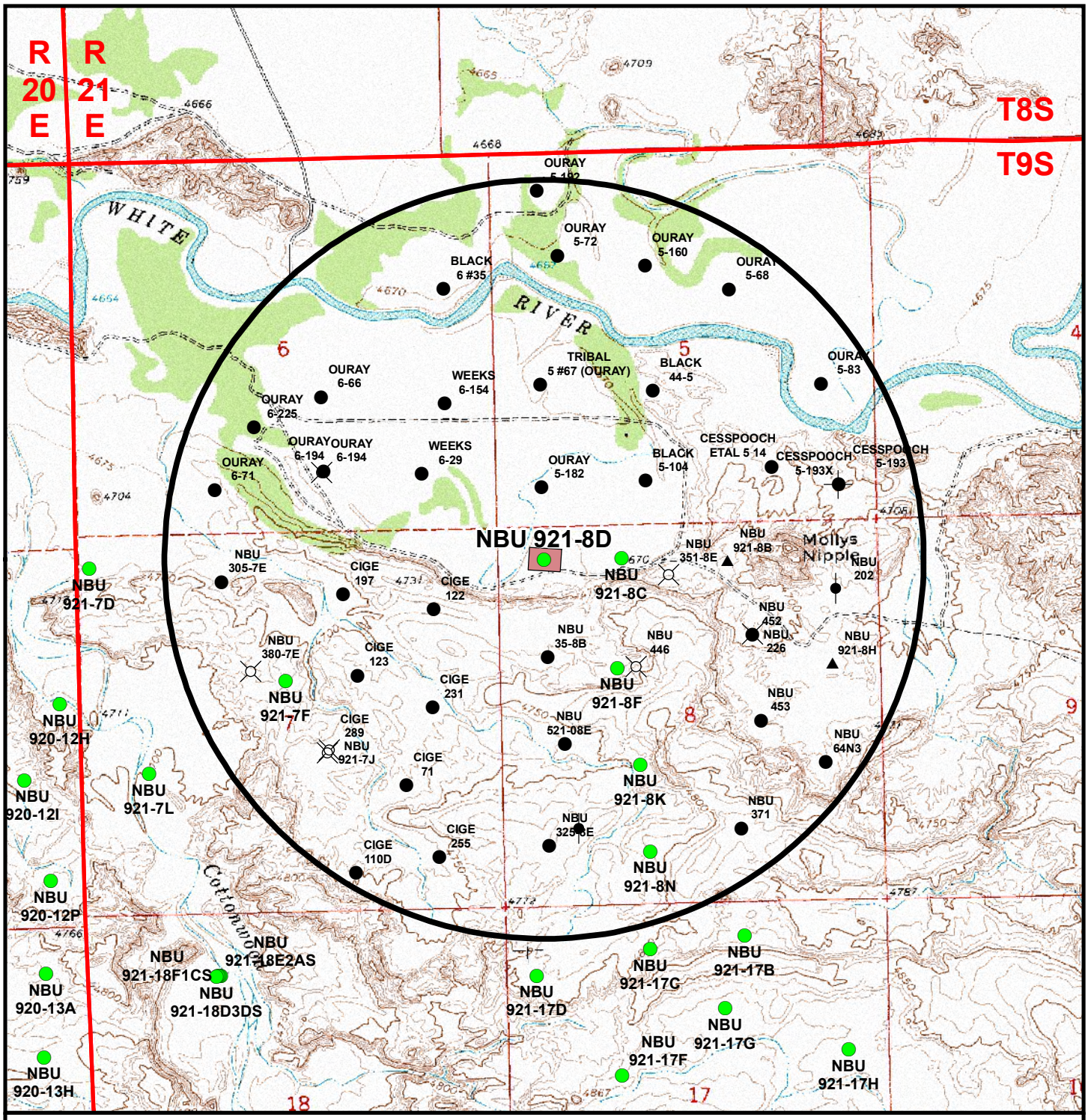
Well Pad - NBU 921-8D
NBU 921-8D
Topo B
469' FNL, 652' FWL
NW¼ NW¼, Section 8, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 6	6 of 9
Drawn: JELo	Date: 20 April 2009		
Revised:	Date:		

’APIWellNo:43047507330000’



Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Well - 1 Mile Radius
- Producing
- Location Abandoned
- Shut-In
- Well Pad
- Approved permit (APD); not yet spudded
- Temporarily-Abandoned
- Spudded (Drilling commenced: Not yet comple
- Plugged and Abandoned

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 921-8D

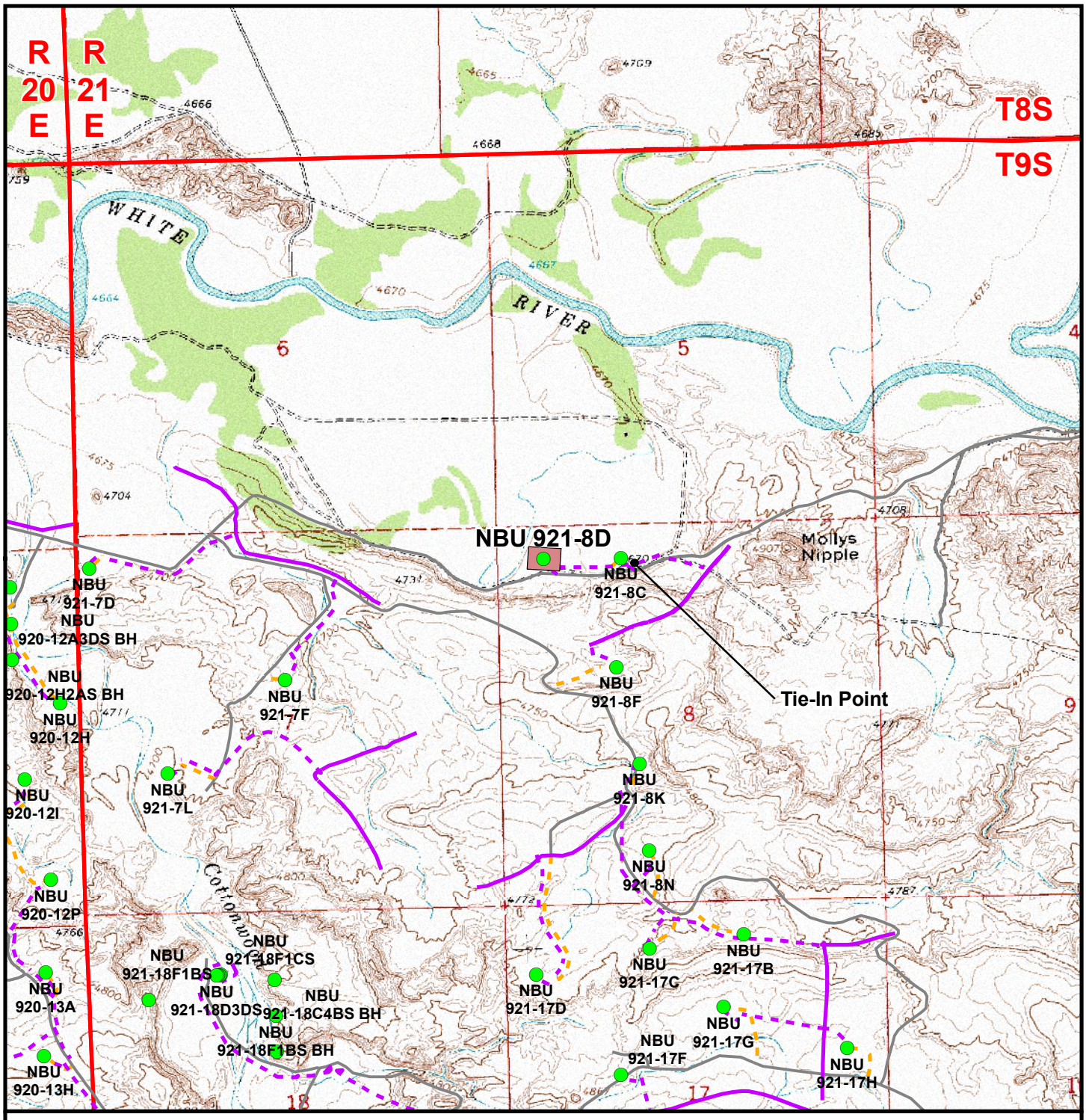
NBU 921-8D
Topo C
469' FNL, 652' FWL
NW¼ NW¼, Section 8, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 7	7 of 9
Drawn: JELo	Date: 20 April 2009		
Revised:	Date:		

’APIWellNo:43047507330000’



Legend

Well - Proposed | Well Pad | Pipeline - Proposed | Road - Proposed | Pipeline - Existing | Road - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±1,110ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

Well Pad - NBU 921-8D

NBU 921-8D
Topo D
469' FNL, 652' FWL
NW¼ NW¼, Section 8, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 8	8 of 9
Drawn: JELo	Date: 20 April 2009		
Revised: JELo	Date: 24 Aug 2009		

’APIWellNo:43047507330000’

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: SOUTHWESTERLY

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: NORTHERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad - NBU 921-8D

NBU 921-8D
LOCATION PHOTOS
469' FNL, 652' FWL
NW ¼ NW ¼ OF SECTION 8, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 04-11-09	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 04-13-09	DRAWN BY: E.M.S.	
Date Last Revised:		4 OF 9

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-8D
WELL - NBU 921-8D
Section 8, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 3.0 MILES TO A SERVICE ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 1.1 MILES TO A SECOND SERVICE ROAD TO THE NORTHEAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE SECOND SERVICE ROAD APPROXIMATELY 2.4 MILES TO A THIRD SERVICE ROAD TO THE EAST. EXIT RIGHT AND PROCEED IN AN EAST BY SOUTHEAST DIRECTION ALONG THE THIRD SERVICE ROAD APPROXIMATELY 2.8 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHERLY DIRECTION APPROXIMATELY 50 FEET TO THE PROPOSED WELL LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 40.0 MILES IN A SOUTHERLY DIRECTION.

NBU 921-8D
Surface: 469' FNL 652' FWL (NW/4NW/4)
Sec. 8 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0149767

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface location in NW/4 NW/4 of Section 8 T9S R21E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on August 27, 2009.

A. Existing Roads:

A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

B. Planned Access Roads:

See MDP for additional details on road construction.
Approximately ±50' (±0.01 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

D. **Location of Existing and Proposed Facilities:**
See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.
Approximately ±1,770' (±0.34 miles) of new pipeline is proposed for this well. Please refer to the attached Topo Map D for existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

E. **Location and Type of Water Supply:**
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

No water well is to be drilled on this lease.

F. **Source of Construction Materials:**
See MDP for additional details on Source of Construction Materials.

G. **Methods of Handling Waste Materials:**
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. **Ancillary Facilities:**
See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. **Well Site Layout:** (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

K. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
435-781-4400

L. Other Information:

See MDP for additional details on Other Information.

M. **Lessee's or Operators' Representative & Certification:**

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot
Danielle Piernot

September 10, 2009
Date

’APIWellNo:43047507330000’

CLASS I REVIEW OF KERR-MCGEE OIL & GAS ONSHORE LP’S 51 PROPOSED WELL LOCATIONS (T9S, R21E, SECTIONS 7, 8, 10, 11, 12, 17, 18, 19, 20, 23, 25, AND 30) IN UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-39

May 11, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A09-363

IPC #09-79

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Well Pads, Access Roads and Pipelines for "NBU #921-7D, 8C, D, F & 17B" (Sec. 12, T 9 S, R 20 E) & (Sec. 6-8 & 17, T 9 S, R 21 E)

Ouray SE
Topographic Quadrangle
Uintah County, Utah

June 22, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

’APIWellNo:43047507330000’

Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237
(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report #: GCI #70

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-8C, NBU 921-8D, NBU 921-8F, NBU 921-8K, NBU 921-8N

Pipelines: Associated pipelines to proposed well pads

Access Roads: Associated access roads to proposed well pads

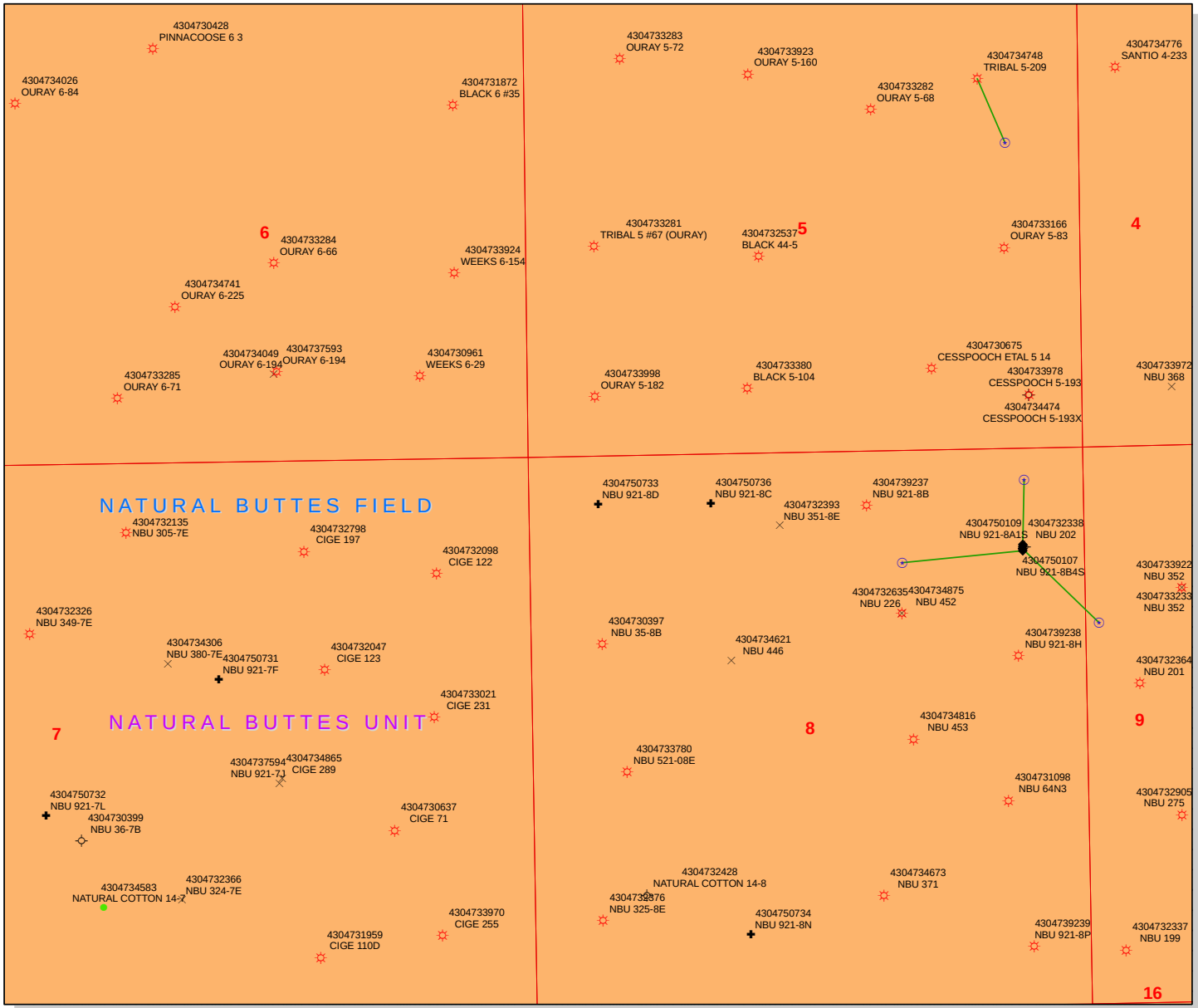
Location: Section 08, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Date: 07/02/2009

Observers: Grasslands Consulting, Inc. Biologists: Chris Gayer, Dan Hamilton, Nick Hall, and Jonathan Sexauer. Technicians: Chad Johnson, Dane Bartlett, and Daniel Ortiz.

Weather: Partly cloudy, 85-90ºF, 0-5 mph winds with no precipitation.



API Number: 4304750733

Well Name: NBU 921-8D

Township 09.0 S Range 21.0 E Section 8

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

Fields
STATUS
ACTIVE
COMBINED
Sections

Wells Query Events
<all other values>
GIS_STAT_TYPE
<Null>
APD
DRL
GI
GS
LA
NEW
OPS
PA
PGW
POW
RET
SGW
SOW
TA
TW
WD
WI
WS

1,200 600 0 1,200 Feet

1:11,790

'APIWellNo:43047507330000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

September 18, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50731	NBU 921-7F	Sec 07 T09S R21E 2079 FNL 2869 FWL
43-047-50732	NBU 921-7L	Sec 07 T09S R21E 1948 FSL 1196 FWL
43-047-50733	NBU 921-8D	Sec 08 T09S R21E 0469 FNL 0652 FWL
43-047-50734	NBU 921-8N	Sec 08 T09S R21E 0705 FSL 2033 FWL
43-047-50735	NBU 921-7D	Sec 07 T09S R21E 0463 FNL 0180 FWL
43-047-50736	NBU 921-8C	Sec 08 T09S R21E 0483 FNL 1729 FWL
43-047-50737	NBU 1022-9B4CS	Sec 09 T10S R22E 0228 FNL 2643 FWL
	BHL	Sec 09 T10S R22E 1100 FNL 1956 FEL
43-047-50738	NBU 1022-9C2DS	Sec 09 T10S R22E 0224 FNL 2563 FWL
	BHL	Sec 09 T10S R22E 0591 FNL 1782 FWL
43-047-50739	NBU 1022-9C3CS	Sec 09 T10S R22E 0225 FNL 2583 FWL
	BHL	Sec 09 T10S R22E 1131 FNL 1548 FWL
43-047-50740	NBU 1022-9C4DS	Sec 09 T10S R22E 0227 FNL 2623 FWL
	BHL	Sec 09 T10S R22E 1141 FNL 2505 FWL
43-047-50751	NBU 920-21G	Sec 21 T09S R20E 1998 FNL 2319 FEL

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

43-047-50752	NBU 1022-8L3CS	Sec 08 T10S R22E 1761 FSL 0309 FWL
	BHL	Sec 08 T10S R22E 1330 FSL 0005 FWL
43-047-50753	NBU 1022-8M3DS	Sec 08 T10S R22E 1765 FSL 0329 FWL
	BHL	Sec 08 T10S R22E 0245 FSL 0350 FWL
43-047-50754	NBU 1022-8N1DS	Sec 08 T10S R22E 1772 FSL 0368 FWL
	BHL	Sec 08 T10S R22E 0940 FSL 2635 FWL
43-047-50755	NBU 1022-8N2DS	Sec 08 T10S R22E 1769 FSL 0348 FWL
	BHL	Sec 08 T10S R22E 0735 FSL 1700 FWL
43-047-50756	NBU 1022-35I1CS	Sec 35 T10S R22E 2335 FSL 0650 FEL
	BHL	Sec 35 T10S R22E 2170 FSL 0460 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:9-18-09

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/11/2009 **API NO. ASSIGNED:** 43047507330000

WELL NAME: NBU 921-8D

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWNW 8 090S 210E **Permit Tech Review:** ☑

SURFACE: 0469 FNL 0652 FWL **Engineering Review:** ☑

BOTTOM: 0469 FNL 0652 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.05655 **LONGITUDE:** -109.58208

UTM SURF EASTINGS: 620939.00 **NORTHINGS:** 4434787.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0149767 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-8D
API Well Number: 43047507330000
Lease Number: UTU 0149767
Surface Owner: INDIAN
Approval Date: 9/29/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

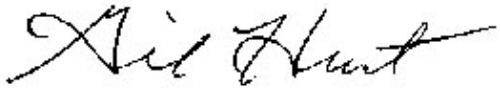
Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047507330000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 9/30/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ DRILLING REPORT Report Date:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: October 06, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/29/2010

RECEIVED September 29, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047507330000

API: 43047507330000
Well Name: NBU 921-8D
Location: 0469 FNL 0652 FWL QTR NWNW SEC 08 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 9/29/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
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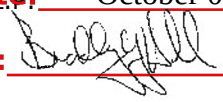
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 9/29/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: October 06, 2010

By: 

RECEIVED September 29, 2010

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
SEP 18 2009

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU0149767

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
891008900A

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
NBU 921-8D

2. Name of Operator
KERRMCGEE OIL&GAS ONSHORE LP
Contact: DANIELLE E PIERNOT
E-Mail: Danielle.Piernot@anadarko.com

9. API Well No.
43-047-50733

3a. Address
PO BOX 173779
DENVER, CO 80202-3779

3b. Phone No. (include area code)
Ph: 720-929-6156
Fx: 720-929-7156

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWNW 469FNL 652FWL 40.05657 N Lat, 109.58277 W Lon

At proposed prod. zone NWNW 469FNL 652FWL 40.05657 N Lat, 109.58277 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 8 T9S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 9 MILES SOUTHEAST OF OURAY, UTAH

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
469 FEET

16. No. of Acres in Lease
777.33

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
APPROXIMATELY 1000 FEET

19. Proposed Depth
10700 MD
10700 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
4669 GL

22. Approximate date work will start
09/28/2009

23. Estimated duration
60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
DANIELLE E PIERNOT Ph: 720-929-6156

Date
09/11/2009

Title
REGULATORY ANALYST

Approved by (Signature)
Name Hatch

Name (Printed/Typed)
Name Hatch

Date
JUL 20 201

Title
Assistant Field Manager
Lands & Mineral Resources
acting

Office
VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED
JUL 26 2011
DIV. OF OIL, GAS & MINING

Additional Operator Remarks (see next page)

Electronic Submission #74164 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 09/14/2009 ()

UDOGM

NOTICE OF APPROVAL

NOS apd posted 9-21-09

CONDITIONS OF APPROVAL ATTACHED

AFMSS#_____

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

09RRH0264AE

NOS

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore LP**	**Location:**	**NWNW, Sec. 8, T9S R21E**
Well No:	**NBU 921-8D**	**Lease No:**	**UTU-0149767**
API No:	**43-047-50733**	**Agreement:**	**Natural Buttes Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

Site Specific Conditions of Approval

- Paint facilities "Shadow Gray."

- Construct well pad using pit run gravel for support

- Monitor construction operations by a permitted archaeologist.

- Monitor construction operations by a permitted paleontologist.

- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey should be conducted prior to construction of the proposed location, pipeline, or access road if construction would take place during raptor nesting season (January 1 through September 30). If active raptor nests are identified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uinta Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (See Appendix D)

- Conduct a new biological survey in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and the 2008 BLM RMP ROD, to include a 300-foot buffer from proposed construction operations (See Appendix D), and conduct operations according to agency specifications and the requirements of the BO issued as a result of Section 7 USFWS consultation.

DOWNHOLE PROGRAM

CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Gamma Ray Log shall be run from Total Depth to Surface

Variances Granted

Air Drilling

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- Mud Material Requirements. In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.
- FIT test. Variance granted due to well know geology and problems that can occur with FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be

performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if

performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/22/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 08/22/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/22/2011

RECEIVED Aug. 22, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047507330000

API: 43047507330000
Well Name: NBU 921-8D
Location: 0469 FNL 0652 FWL QTR NWNW SEC 08 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 9/29/2009

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- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Andy Lytle **Date:** 8/22/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Aug. 22, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0149767

SUNDRY NOTICES AND REPORTS ON WELLS

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UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-8D

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507330000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 4/16/2012	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 04/16/2012 AT 0830 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 27, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE		**DATE**
N/A		4/17/2012

RECEIVED: Apr. 17, 2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

C

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750698	NBU 921-19F		SENW	19	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	4/2/2012			4/1/2012	

Comments: MIRU TRIPPLE A BUCKET RIG.
SPUD WELL ON 04/02/2012 AT 0830 HRS. WSMVD

Well 2

C

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750733	NBU 921-8D		NWNW	8	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	4/16/2012			4/1/2012	

Comments: MIRU TRIPPLE A BUCKET RIG.
SPUD WELL ON 04/16/2012 AT 0830 HRS. WSMVD

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)
Signature
REGULATORY ANALYST
Title
4/17/2012
Date

RECEIVED
APR 18 2012
Div. of Oil, Gas & Mining

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ NOTICE OF INTENT — Approximate date work will start:
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ☐ SPUD REPORT — Date of Spud:
- ☑ DRILLING REPORT — Report Date: 4/20/2012

TYPE OF ACTION

☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON APRIL 18, 2012. DRILLED SURFACE HOLE TO 3130'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
May 09, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II
SIGNATURE N/A		**DATE** 4/24/2012

RECEIVED: Apr. 24, 2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/6/2012	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No activity for the month of June 2012. Surface casing set at 2,320'.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 10, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 7/6/2012

RECEIVED: Jul. 06, 2012

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0149767

SUNDRY NOTICES AND REPORTS ON WELLS

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UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-8D

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507330000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6527

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 7/9/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests approval to deepen the well, the total depth of the well will remain within the same formation as currently permitted (Mesaverde). The Operator also requests approval for a FIT wavier, closed loop drilling option, surface casing change and a production casing change. All other aspects of the previously approved drilling plan will not change. Please see the attachment. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: July 23, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE		**DATE**
N/A		7/9/2012

RECEIVED: Jul. 09, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-8D
Surface: 469 FNL / 652 FWL NWNW
Section 8 T9S R21E

Unitah County, Utah
Mineral Lease: UTU-0149767

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,808'	
Birds Nest	2,130'	Water
Mahogany	2,657'	Water
Wasatch	5,291'	Gas
Mesaverde	8,445'	Gas
Sego	10,718'	Gas
Castlegate	10,801'	Gas
Blackhawk	11,173'	Gas
TD	11,365'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

RECEIVED: Jul. 09, 2012

5. Drilling Fluids Program:

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 11365' TVD, approximately equals 7,501 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 5,052 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

RECEIVED: Jul. 09, 2012

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

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Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. **Other Information:**

Please refer to the attached Drilling Program.

RECEIVED: Jul. 09, 2012

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	July 9, 2012
WELL NAME	**NBU 921-8D**			11,365'	TVD 11,365' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,825'
SURFACE LOCATION	NWNW 469 FNL	652 FWL	Sec 8	T 9S	R 21E
	Latitude: 40.056567	Longitude: -109.582766		NAD 83	
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)				
	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			12 1/4"	8-5/8", 28#, IJ-55, LTC	Air mist
			200'		
All water flows encountered while drilling will be reported to the appropriate agencies.					
			11'	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	1,808'			
	Top of Birds Nest @	2,130'			
	Mahogany @	2,657'			
	Preset f/ GL @ 3,110'	TVD			
	Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.				
	Wasatch @	5,291'			
Mud logging program TBD Cased hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# HCP-110 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-13.0 ppg
	Mverde @	8,445' TVD			
	Sego @	10,718' TVD			
	Castlegate @	10,801' TVD			
	MN5 @	11,173' TVD			
Max anticipated Mud required 13.0 ppg	TD @	11,365' TVD 11,365' MD			

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION LTC	TENSION DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	3,110	28.00	IJ-55	LTC	1.73	1.29	4.56	N/A
								10,690	8,650	279,000	367,000
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.13		3.47
	4-1/2"	5,000	to	11,365'	11.60	HCP-110	LTC	1.19	1.13	4.72	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,610'	65/35 Poz + 6% Gel + 10 pps gilsonite	240	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,785'	Premium Lite II +0.25 pps	370	35%	12.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,580'	50/50 Poz/G + 10% salt + 2% gel	1,550	35%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

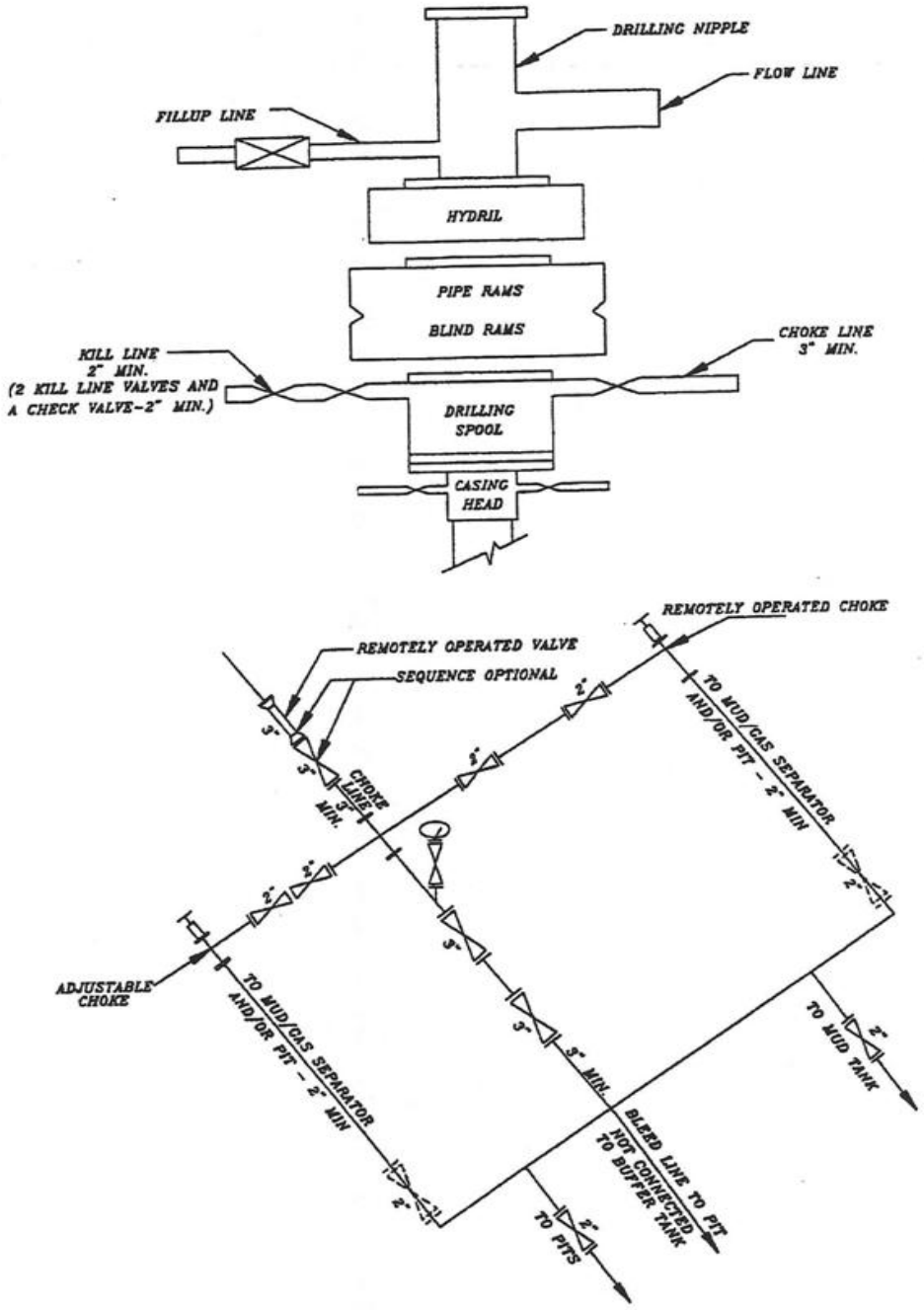
Nick Spence / Danny Showers

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: Jul. 09, 2012

EXHIBIT A
NBU 921-8D



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

RECEIVED: Jul. 09, 2012

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

RECEIVED: Jul. 09, 2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 8/2/2012	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No activity for the month of July 2012. Surface casing set at 2,320'.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
August 02, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE		**DATE**
N/A		8/2/2012

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435-790-2921
Well Name/Number NBU 921-8D
Qtr/Qtr NW/NW Section 8 Township 9S Range 21E
Lease Serial Number UTU-0149767
API Number 4304750733

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _ _ AM ☐ PM ☐

BOPE

☒ Initial BOPE test at surface casing point
☐ Other

Date/Time 8/25/12 2 AM ☒ PM ☐

Rig Move
Location To:

Date/Time _ _ AM ☐ PM ☐

RECEIVED
AUG 24 2012
DIV. OF OIL, GAS & MINING

Remarks _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/5/2012	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of August 2012. Well TD at 3,145

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 11, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE		**DATE**
N/A		9/5/2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0149767

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
UTE

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-8D

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047507330000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 9/6/2012	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: ACTS PIT

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING TO 11793' ON 09/03/2012. CEMENTED PRODUCTION CASING. RELEASED PIONEER 54 RIG ON 09/06/2012.DETAILS OF CASING AND CEMENT WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
September 27, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II
SIGNATURE		**DATE**
N/A		9/27/2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149767

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-8D

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047507330000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0469 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 08 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/18/2012	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject well was placed on production on 10/18/2012. The Chronological Well History will be submitted with the well completion Report.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 25, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II
SIGNATURE N/A		**DATE** 10/23/2012

RECEIVED: Oct. 23, 2012

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0149767

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGEE OIL & GAS ONSHORE LP Contact: LINDSEY A FRAZIER E-Mail: lindsey.frazier@anadarko.com

8. Lease Name and Well No. NBU 921-8D

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6857

9. API Well No. 43-047-50733

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWNW 469FNL 652FWL 40.056567 N Lat, 109.582766 W Lon

At top prod interval reported below NWNW 469FNL 652FWL 40.056567 N Lat, 109.582766 W Lon

At total depth NWNW ~~469FNL 652FWL~~ 574 654 40.056567 N Lat, 109.582766 W Lon BHL by HSM

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 8 T9S R21E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 04/16/2012

15. Date T.D. Reached 09/03/2012

16. Date Completed ☐ D & A ☒ Ready to Prod. 10/18/2012

17. Elevations (DF, KB, RT, GL)* 4668 GL

18. Total Depth: MD 11793 TVD 11790

19. Plug Back T.D.: MD 11744 TVD 11741

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
BHP-HDIL/ZDL/CNGR-CBL/GR/CCL/TEMP

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	8.625 IJ-55	28.0	0	3123		625		0	
7.875	4.500 P-110	11.6	0	11792		2714		1466	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	11247							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	MESAVERDE	9458	11554	9458 TO 11554	0.360	135	OPEN
B)							
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9458 TO 11554	PUMP 13,036 BBLS SLICK H2O AND 272,098 LBS 30/50 OTTAWA SAND

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DIV. OF OIL, GAS & MINING

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/18/2012	10/23/2012	24	→	0.0	3175.0	521.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	2278 SI	3141.0	→	0	3175	521		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #160487 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	1980
				BIRD'S NEST	2210
				MAHOGANY	2533
				WASATCH	5309
				MESAVERDE	8450

32. Additional remarks (include plugging procedure):
The first 210 ft of the surface hole was drilled with a 12 ? inch bit. The remainder of surface hole was drilled with an 11 inch bit. DQX P-110 csg was run from surface to 5056 ft; LTC P-110 csg was run from 5056 ft to 11,792 ft. Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #160487 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal

Name *(please print)* LINDSEY A FRAZIER Title REGUALTORY ANALYST

Signature (Electronic Submission) Date 11/15/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D		Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012	End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/18/2012	4:00 - 20:00	16.00	DRLSUR	01	A	P		MOVE RIG 29.5 MILES TO THE NBU 921-8D
	20:00 - 0:00	4.00	DRLSUR	01	B	P		RIG UP AND PRE PARE TO SPUD ON THE NBU 921-8D
4/19/2012	0:00 - 1:30	1.50	DRLSUR	02	C	P		PICK UP MUD MOTOR AND 12.25 BIT SPUD 4/19/12 00:00 DRILL 12.25" HOLE 44 ft TO 210 ft (166 FT, 166 FPH). 12.25 in. BIT ON 35 nd RUN. WOB 5-15 Kips. GPM 491. PSI ON/OFF 600/400. SURFACE RPM 55, MOTOR 83, TOTAL RPM 138. UP/DOWN/ ROT 20/20/20 K. DRAG 0 . CIRCULATE CLOSED LOOP SYSTEM W/ 8.5 ppg WATER. DRILL DOWN TO 210 ft W/6 in COLLARS.
	1:30 - 3:30	2.00	DRLSUR	06	A	P		PRE JOB SAFETY MEETING, LAY DOWN 6 in DRILL COLLARS, 12 1/4 in BIT. MAKE UP Q506F 11in BIT (2ND RUN) (SN 7138966) PICK UP 8 in DIRECTIONAL ASSEMBLY. INSTALL EM TOOL. ORIENT TO MUD MOTOR AND TRIP IN HOLE.
	3:30 - 0:00	20.50	DRLSUR	02	C	P		DRILL 11" HOLE F/ 220' - 2320' WOB 20-27 ROT 45-65 GPM 490 DHR 83 AVE ROP 105 FT HR UP/DN/ROT 80/53/67 LAST SURVEY 07 DEG 201.55 AZI AZI 3.5' BELOW 3' LEFT OF TARGET CIRCULATE RESERVE PIT
4/20/2012	0:00 - 10:30	10.50	DRLSUR	02	C	P		DRILL 11" HOLE F/ 2320' - 3130' T.D. WOB 20-27 ROT 45-65 GPM 490 DHR 83 AVE ROP 105 FT HR UP/DN/ROT 85/75/80 LAST SURVEY 07 DEG 201.55 AZI AZI 3.5' BELOW 3' LEFT OF TARGET CIRCULATE RESERVE PIT
	10:30 - 12:30	2.00	DRLSUR	05	C	P		CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	12:30 - 16:30	4.00	DRLSUR	06	A	P		TOOH LAYING DOWN L/D MWD TOOLS, DIRECTIONAL TOOLS, MUD MOTOR AND BIT
	16:30 - 21:00	4.50	DRLSUR	12	C	P		RIG UP AND RUN 70 JOINTS 8.625 28# J55 SURFACE CASING SHOE AT 3105' BAFFLE AT 3061' RAN 200' 1" PIPE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	21:00 - 0:00	3.00	DRLSUR	12	E	P		PRE JOB SAFETY MEETING PRESSURE TEST LINES TO 3000 PSI PUPM 190 BBLS H2O TO 20 BBLS GEL WATER INTO 230 SKS (156.4 BBLS) LEAD CMNT 11 PPG 3.82 YIELD CMNT INTO 175 SKS (35.8 BBLS) 15.8 PPG 1.15 YIELD TAIL CMNT 15 BBLS LEAD CMNT TO SURFACE PUMP 100 SKS (20.4 BBLS) TAIL CMNT DOWN 1" CMNT STARTED TO FALL WILL CALL TOP OUT TRUCK TO FINISH JOB RELESED RIG @ MIDNIGHT 4-20-12
8/24/2012	6:00 - 20:00	14.00	MIRU	01	A	P		MOVE RIG 15 MILES TO THE NBU 921-8D, WITH WESTROC TRUCKING, J&C CRANE, MOUNTAIN WEST, 5 BED TRUCKS, 7 HAUL TRUCKS, 1 PUSHER & 2 SWAMPERS. 1 CRANE & 4 OILERS, 2 CAMP TRUCKS & 2 1-TONS, 8 EXTRA HAND RIG HANDS TOTAL FOR MOVE, (LOST THE BOTTOM TO LOC, TRUCKS STUCK IN SAND, HAD TO PUSH & PULL MOST ALL LOADS INTO PLACE), LOWERED DERRICK @ 06:30, RAISED DERRICK @ 19:30 INSPECT DRILL PIPE, HARD BAND HWDP
	20:00 - 0:00	4.00	MIRU	01	B	P		RIG UP FLOOR, BACK YARD, SERVICE LOOP, 90% RIGGED UP, 90% MOVED, WATER & PACK LOC
8/25/2012	0:00 - 12:00	12.00	MIRU	01	B	P		FINISH RIG UP WITH WESTROC & J&C CRANE, SET TOP DRIVE & ST-80 ON FLOOR, RIG UP TOP DRIVE, TORQUE TUBE, SERVICE LOOP, GAS BUSTER, FLARE LINES, RELEASE WESTROC @ 12:00, J&C CRANE @ 08:00, INSPECT & HARDBAND DRILL PIPE, LAY 2- LOADS PIT RUN ON LOC & GRADE WITH STUBBS, TRANSFER MUD UPRIGHTS & MUD TO LOC
	12:00 - 0:00	12.00	DRLPRV	22	L	Z		TROUBLE SHOOT ELEC PROBLEMS ON TOP DRIVE - BLOWER & HYD PUMP
8/26/2012	0:00 - 18:00	18.00	DRLPRV	22	K	Z		TROBLESHOOT TOP DRIVE ELEC, (TOTAL 30 HRS WORK ON TOP DRIVE)
	18:00 - 20:00	2.00	DRLPRV	14	A	P		NIPPLE UP BOPE
	20:00 - 22:00	2.00	DRLPRV	14	A	P		NIPPLE UP SWACO
	22:00 - 0:00	2.00	DRLPRV	15	A	P		START TESTING BOPE & SWACO
8/27/2012	0:00 - 1:30	1.50	DRLPRV	15	A	P		TEST BOPE, BLIND RAMS, PIPE RAMS, INNER & OUTER CHOKE LINES, KILL LINE, 250 LOW, 5000 HIGH, ANN 250-2500, CASING 1500 FOR 30 MINS
	1:30 - 2:30	1.00	DRLPRV	15	A	P		TEST SWACO ORBIT VALVE & CHOKE TO 1000 PSI
	2:30 - 3:00	0.50	DRLPRV	14	B	P		INSTALL WEAR BUSHING
	3:00 - 6:30	3.50	DRLPRV	06	A	P		HELD SAFETY MEETING W/ RIG & P/U CREWS, R/U & P/U DIR TOOLS & SCRIBE, BHA & DRILL PIPE TO 2967', RIG DOWN P/U TRUCK
	6:30 - 7:30	1.00	DRLPRV	09	A	P		CUT & SLIP DRLG LINE, INSTALL ROTATING RUBBER
	7:30 - 9:00	1.50	DRLPRV	02	F	P		DRILL CEMENT, F/E & OPEN HOLE TO 3145', SHOE @ 3124', BAFFLE @ 3079

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 17:00	8.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 3145 TO 4275', 1130' @ 141.2' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 200 GPM 586 MW 8.8 PPG 33 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1800-1400, DIFF 200-500 PU/SO/RT = 110-90-100 K SLIDE = 28' IN .34 HRS = 82.3' PH ROT = 1102' IN 7.66 HRS = 143.8' PH NOV/ 2-COMVENTIONAL, MIXING GYP FOR HARDNESS TO HELP CUT DRYER 31' N & 11' WOF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE NO MUD LOSS
	17:00 - 17:30	0.50	DRLPRV	07	A	P		SERVICE RIG
	17:30 - 0:00	6.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 4275' TO 5142', 867' @ 133.4' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 200 GPM 586 MW 8.8 PPG 35 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1800-1400, DIFF 200-500 PU/SO/RT = 135-115-125 K SLIDE = 45' IN .75 HRS = 60' PH ROT = 822' IN 5.75 HRS = 142.9' PH NOV/ 2-COMVENTIONAL, MIXING GYP FOR HARDNESS TO HELP CUT DRYER 25' N & 9' W OF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE NO MUD LOSS
8/28/2012	0:00 - 5:30	5.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 5142' TO 5791', 649' @ 118' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 200 GPM 586 MW 8.8 PPG 35 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 2400-2000, DIFF 200-500 PU/SO/RT = 145-125-135 K SLIDE = 16' IN .17 HRS = 94' PH ROT = 633' IN 5.33 HRS = 118' PH NOV/ 2- DEWATERING, MIXING GYP FOR HARDNESS TO HELP CUT DRYER 24' N & 7' W OF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE NO MUD LOSS
	5:30 - 6:00	0.50	DRLPRV	08	B	Z		CHANGE OUT SWABS #1 PUMP

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 16:30	10.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 5791' TO 6645', 854' @ 81.3' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 180 GPM 528 MW 9.0 PPG 38 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1900-1500 , DIFF 200-500 PU/SO/RT = 150-140-145 K SLIDE = 31' IN .84 HRS = 36.9' PH ROT = 823' IN 9.66 HRS = 85.2' PH NOV/ 2- DEWATERING,BYPASS ON LOSS MIXING GYP FOR HARDNESS TO HELP CUT DRYER 17' N & 12' W OF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE LOST 400 BBLS @ 6275' PUMPED 10% LCM, REGAINED RETURNS, LOST 200 BBLS @ 6570', PUMPING 10 BBL 10% SWEEPS EVERY 100'
	16:30 - 17:00	0.50	DRLPRV	07	A	P		SERVICE RIG, BOP DRILL 69 SEC, F/T HCR VALVE
	17:00 - 0:00	7.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 6645 TO 7160', 515' @ 73.6' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 160 GPM 468 MW 9.0 PPG 38 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1900-1500 , DIFF 200-500 PU/SO/RT = 170-145-157 K SLIDE = 25' IN .92 HRS = 27.2' PH ROT = 490' IN 6.08 HRS = 80.6' PH NOV/ 2- DEWATERING,BYPASS ON LOSS 43N & 24 W OF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100' LOSSING 10 GAL A MIN
8/29/2012	0:00 - 16:00	16.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 7160' TO 7943', 783'@ 48.9' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 38 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1900-1500 , DIFF 200-500 PU/SO/RT = 180/153/169 K SLIDE = 40' IN 1.41 HRS@ 28.3' PH ROT = 743' IN 14.59 HRS@ 50.9' PH NOV/ 2- DEWATERING,BYPASS ON LOSS 43' N AND 35' WOF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
	16:00 - 16:30	0.50	DRLPRV	08	B	Z		*** FAILURE: PUMPS, REPAIRING PISTONS ON PUMP #1, CIRCULATING THROUGH PUMP #2

Operation Summary Report

Well: NBU 921-8D		Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012	End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:30 - 17:00	0.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 7943' TO 7974', 31'@62' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 38 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1900-1500 , DIFF 200-500 PU/SO/RT = 180/153/169 K SLIDE = ROT = 100% NOV/ 2- DEWATERING,BYPASS ON LOSS 43' N AND 35' WOF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
	17:00 - 17:30	0.50	DRLPRV	07	A	P		RIG SERVICE
	17:30 - 0:00	6.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 7974' TO 8325',351'@54' PH WOB / 22-24 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 38 VIS TRQ ON/OFF = 4-7 K PSI ON /OFF 1900-1500 , DIFF 200-500 PU/SO/RT = 180/153/169 K SLIDE = ROT = 100% NOV/ 2- DEWATERING,BYPASS ON LOSS 57' N AND 40' WOF TARGET CENTER SWACO OFF LINE 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
8/30/2012	0:00 - 12:00	12.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 8325' TO 8940',615'@51' PH WOB / 23-25 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2100-1600 , DIFF 200-500 PU/SO/RT = 192/171/184 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 55' N AND 35' WOF TARGET CENTER SWACO ONLINE@ 8500' 140 PSI DRILLING, 160 PSI CONNECTION 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
	12:00 - 12:30	0.50	DRLPRV	08	B	Z		*** FAILURE: PUMPS, CHANGED OUT LINER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:30 - 14:30	2.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 8940' TO 9016',76'@38' PH WOB / 23-25 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2100-1600 , DIFF 200-500 PU/SO/RT = 192/171/184 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 55' N AND 35' WOF TARGET CENTER SWACO ONLINE@ 8500' 140 PSI DRILLING, 160 PSI CONNECTION 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
	14:30 - 15:00	0.50	DRLPRV	07	A	P		RIG SERVICE
	15:00 - 0:00	9.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 9016' TO 9500',484'@53.7' PH WOB / 23-25 RPM TOP DRIVE 50-60 SPM 160 GPM MW 9.0 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2200-1700 , DIFF 200-500 PU/SO/RT = 210/175/190 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 43' N AND 36' WOF TARGET CENTER SWACO ONLINE@ 8500' 275 PSI DRILLING, 300 PSI CONNECTION 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
8/31/2012	0:00 - 11:00	11.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 9500' TO 10016',516'@46.9' PH WOB / 25 RPM TOP DRIVE 50-60 SPM 160 GPM 498 MW 9.0 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2200-1700 , DIFF 200-500 PU/SO/RT = 210/175/190 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 43' N AND 36' WOF TARGET CENTER SWACO ONLINE@ 8500' 275 PSI DRILLING, 300 PSI CONNECTION 0 DRILL FLARE, 0 CONN FLARE PUMPING 10 BBL 10% SWEEPS EVERY 100'
	11:00 - 12:00	1.00	DRLPRV	08	B	Z		*** FAILURE: PUMPS, CHANGE OUT LINER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 16:30	4.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10016' TO 10155',139'@31'PH WOB / 25 RPM TOP DRIVE 50-60 SPM 160 GPM 498 MW 9.5 PPG 38 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2200-1700 , DIFF 200-500 PU/SO/RT = 220/156/198 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 43' N AND 36' WOF TARGET CENTER SWACO ONLINE@ 8500' 150 PSI DRILLING, 250 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
	16:30 - 17:00	0.50	DRLPRV	07	A	P		RIG SERIVE, BOP DRILL 69 SEC, FUNCTION ANNULAR AND HCR VALVE
	17:00 - 0:00	7.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10155' TO 10340',185'@26.4'PH WOB / 25 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 9.5 PPG 38 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2900-1700 , DIFF 200-500 PU/SO/RT = 220/156/198 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL 27'N AND 27'WOF TARGET CENTER SWACO ONLINE@ 8500' 150 PSI DRILLING, 250 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
9/1/2012	0:00 - 1:00	1.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10340' TO 10355',15'@15'PH WOB / 25-27 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 9.5 PPG 38 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2900-1700 , DIFF 200-500 PU/SO/RT = 220/156/198 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL/BYPASSS 27' N AND 27' WOF TARGET CENTER SWACO ONLINE@ 8500' 150 PSI DRILLING, 250 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
	1:00 - 2:00	1.00	DRLPRV	05	C	P		CIRCULATED BOTTOMS UP PRIOR TO TRIPPING OUT OF THE HOLE
	2:00 - 8:30	6.50	DRLPRV	06	A	P		TRIPPING OUT OF THE HOLE TO CHANGE OUT BIT AND MOTOR, FUNCTIONED PIPE RAMS AND BLIND RAMS

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:30 - 13:30	5.00	DRLPRV	06	A	P		TRIPPING IN HOLE
	13:30 - 15:30	2.00	DRLPRV	03	E	P		WASH AND REAMED FROM 10059' TO BOTTOM
	15:30 - 0:00	8.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10355' TO 10790',435'@51'PH WOB / 20-23 RPM TOP DRIVE 50-60 SPM 160 GPM 498 MW 9.7 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2500-2200 , DIFF 200-500 PU/SO/RT = 225/195/210 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL/BYPASSS 10' N AND 15' WOF TARGET CENTER SWACO ONLINE@ 8500' 150 PSI DRILLING, 250 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
9/2/2012	0:00 - 15:00	15.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10790' TO 11006',216'@14'PH WOB / 23-28 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 9.8 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2500-2200 , DIFF 200-500 PU/SO/RT = 230/190/212 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL/BYPASSS 8.3' WOF TARGET CENTER SWACO ONLINE@ 8500' 80 PSI DRILLING, 100 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
	15:00 - 15:30	0.50	DRLPRV	07	A	P		RIG SERVICE
	15:30 - 17:30	2.00	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 11006' TO 11250',244'@122'PH WOB / 23-28 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 9.8 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2500-2200 , DIFF 200-500 PU/SO/RT = 230/190/212 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL/BYPASSS 8.3' WOF TARGET CENTER SWACO ONLINE@ 8500' 80 PSI DRILLING, 100 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
	17:30 - 18:30	1.00	DRLPRV	08	B	Z		*** FAILURE:PUMPS, VALVES AND SEATS NEEDED TO BE CLEANED OUT, ALSO CLEANED OUT SUCTION MANIFOLD

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:30 - 0:00	5.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 11250' TO 11370',120'@21.8'PH WOB / 23-28 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 9.8 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2500-2200 , DIFF 200-500 PU/SO/RT = 225/200/212 K SLIDE = ROT = 100% NOV/ 2- CONVENTIONAL/BYPASSS 12' S AND 3' WOF TARGET CENTER SWACO ONLINE@ 8500' 80 PSI DRILLING, 100 PSI CONN 0 DRILL FLARE, 0 CONN FLARE
9/3/2012	0:00 - 14:30	14.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 11370' TO 11793',423'@29'PH WOB / 23-29 RPM TOP DRIVE 50-60 SPM 160-200 GPM 498-586 MW 10.9 PPG 40 VIS TRQ ON/OFF = 5-8 K PSI ON /OFF 2500-2200 , DIFF 200-500 PU/SO/RT = 240/195/219 K SLIDE = ROT = 100% NOV/ 2- BYPASSS 30' S AND 2' E OF TARGET CENTER SWACO OFFLINE 0 DRILL FLARE, 0 CONN FLARE
	14:30 - 17:00	2.50	DRLPRV	05	C	P		CIRCULATED TWO BOTTOMS UP, PUMPED HIGH VIS SWEEPS, SPOTTED 80 BBLS 12 PPG MUD ON BOTTOM
	17:00 - 20:30	3.50	DRLPRV	06	E	P		TRIPPING OUT OF THE HOLE TO CASING SHOE FOR FIRST WIPER TRIP
	20:30 - 0:00	3.50	DRLPRV	06	E	P		TRIPPING IN THE HOLE
9/4/2012	0:00 - 0:30	0.50	DRLPRV	06	E	P		TRIPPING IN THE HOLE
	0:30 - 2:00	1.50	DRLPRV	05	C	P		CIRCULATED BOTTOMS UP
	2:00 - 5:30	3.50	DRLPRV	06	E	P		TRIPPED OUT OF THE HOLE TO CASING SHOE FOR SECOND WIPER TRIP
	5:30 - 6:00	0.50	DRLPRV	09	A	P		SLIP AND CUT 100' DRILL LINE
	6:00 - 10:00	4.00	DRLPRV	06	E	P		TRIPPING IN HOLE TO BOTTOM
	10:00 - 11:30	1.50	DRLPRV	05	C	P		CIRCULATED BOTTOMS UP
	11:30 - 17:00	5.50	DRLPRV	06	B	P		TRIPPED OUT OF THE HOLE FOR LOGS, LAYED DOWN DIRECTIONAL TOOLS, MUD MOTOR AND BIT
	17:00 - 23:30	6.50	EVALPR	11	D	P		RIG UP AND SAFETY MEETING WITH BAKER HUGHES CREW, RAN TRIPLE COMBO LOGS TO/FROM 11777', RIG DOWN
	23:30 - 0:00	0.50	DRLPRV	06	A	P		PICKED UP BIT AND BIT SUB
9/5/2012	0:00 - 5:00	5.00	DRLPRV	06	A	P		TRIPPED BACK IN THE HOLE TO BOTTOM TO LAY DOWN DRILL PIPE
	5:00 - 7:00	2.00	DRLPRV	05	C	P		CIRCULATED BOTTOMS UP

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D		Spud Date: 4/19/2012	
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 4/5/2012		End Date: 9/6/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 13:30	6.50	DRLPRV	06	A	P		RIGGED UP KIMZEY LAYDOWN TRUCK, SAFETY MEETING, LAYING DOWN DRILL PIPE
	13:30 - 14:00	0.50	DRLPRV	14	B	P		PULL WEAR BUSHING
	14:00 - 22:30	8.50	CSGPRO	12	C	P		RIGGED UP KIMZEY CASING CREW, SAFETY MEETING, RUN 156 JTS 4.5" P-110 LTC, 115 JTS 4.5" P110 DQX, 2 MARKER'S & 1 X/O, LAND CASING & RIG DOWN CASING CREW, SHOE @ 11,773', FLOAT @ 11,727', BLACKHAWK MARKER @ 11238', MESA MARKER @ 8514', CROSSOVER/WASATCH MARKER @ 5037'
	22:30 - 0:00	1.50	DRLPRV	05	D	P		CIRCULATING DOWN CASING PRIOR TO CEMENT JOB, RIGGING UP BAKER ATLAS CEMENT EQUIPMENT
9/6/2012	0:00 - 1:30	1.50	DRLPRV	05	D	P		CIRCULATING DOWN CASING PRIOR TO CEMENT JOB, RIGGING UP BAKER ATLAS CEMENT EQUIPMENT
	1:30 - 6:00	4.50	DRLPRV	12	E	P		HELD SAFETY MEETING WITH RIG & BAKER HUGHES CEMENTER'S, RIG UP & TEST LINES TO 5000 PSI, PUMP 25 BBL SPACER, LEAD 642 SACKS 12 PPG 2.26 YLD, TAIL 2072 SACKS 14.3 PPG 1.32 YLD, DISPLACE WELL WITH 182 BBLS CLAYCARE WATER, FLOATS HELD, LOST RETURNS AFTER DROPPING TOP PLUG, BUMP PLUG WITH 4500 PSI (500 OVER FINAL LIFT OF 3900), FLUSH STACK & RIG DOWN
	6:00 - 6:30	0.50	DRLPRV	14	B	P		INSTALL CASING PACKOFF
	6:30 - 10:00	3.50	DRLPRV	14	A	P		NIPPLE DOWN BOPE, RIG RELEASED TO NBU 1022-11J1BS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-8D	**Wellbore No.**	OH
Well Name	NBU 921-8D	**Wellbore Name**	NBU 921-8D
Report No.	1	**Report Date**	4/19/2012
Project	UTAH-UINTAH	**Site**	NBU 921-8D
Rig Name/No.		**Event**	COMPLETION
Start Date	10/17/2012	**End Date**	10/18/2012
Spud Date	4/19/2012	**Active Datum**	RKB @4,687.00usft (above Mean Sea Level)
UWI	NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

1.3 General

Contractor	Casedhole	**Job Method**		**Supervisor**	CLAUD SIMS
Perforated Assembly		**Conveyed Method**			

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	9,458.0 (usft)-11,554.0 (us	**Start Date/Time**	10/9/2012 12:00AM
No. of Intervals	31	**End Date/Time**	10/9/2012 12:00AM
Total Shots	135	**Net Perforation Interval**	43.00 (usft)
Avg Shot Density	3.14 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/9/2012 12:00AM	MESAVERDE/			9,458.0	9,460.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

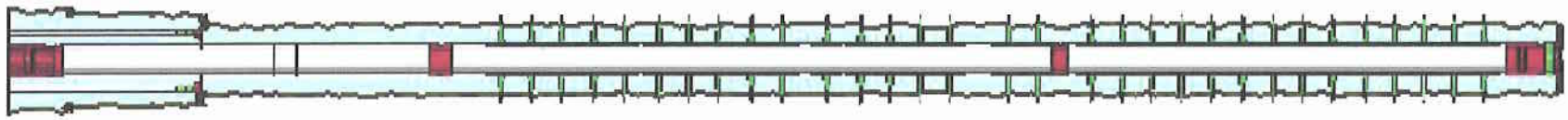
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/9/2012 12:00AM	MESAVERDE/			9,493.0	9,494.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,522.0	9,524.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,589.0	9,591.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,632.0	9,633.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,753.0	9,754.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,769.0	9,770.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,793.0	9,795.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,869.0	9,871.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			9,909.0	9,911.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			10,297.0	10,299.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			10,413.0	10,414.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			10,424.0	10,426.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			10,454.0	10,455.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			10,467.0	10,468.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,221.0	11,222.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,233.0	11,236.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,261.0	11,263.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,293.0	11,294.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,303.0	11,304.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,324.0	11,325.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,335.0	11,336.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/9/2012 12:00AM	MESAVERDE/			11,350.0	11,351.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,392.0	11,393.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,403.0	11,404.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,419.0	11,420.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,503.0	11,504.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,515.0	11,516.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,527.0	11,528.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,538.0	11,540.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/9/2012 12:00AM	MESAVERDE/			11,553.0	11,554.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 10/17/2012		End Date: 10/18/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/19/2012	-							
10/6/2012	7:30 - 7:45	0.25	FRAC	48		P		HELD SAFETY MEETING: HIGH PRESSURE
	7:45 - 10:00	2.25	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 13 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 38 PSI. 1ST PSI TEST T/ 9000 PSI. HELD FOR 30 MIN LOST 50 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG, BLEED PSI OFF WELL SWIFN
10/7/2012	-							
10/13/2012	7:45 - 8:00	0.25	FRAC	48		P		HELD SAFETY MEETING: MUD
	8:00 - 8:30	0.50	FRAC	33		P		RU B & C QUICK TEST TESTED FRAC VALVES TO 9000 PSI, HELD 10 MIN GOOOD RD, TESTER
	8:30 - 10:30	2.00	FRAC	37		P		RU WL, PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 10/17/2012		End Date: 10/18/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/16/2012	7:00 - 19:00	12.00	FRAC	36	E	P		MIRU SUPERIOR FRAC CREW, PRESSURE TEST SURFACE LINES TO 9000#, PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 10K & 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D FRAC STG #1] WHP = 2600 PSI, BRK DN PERFS = 5845 PSI, @ 5.1 BPM, ISIP = 4540#, FG =0.83 , CALC ALL PERF OPEN @ 48.6 BPM, @ 6780 PSI = 100 %, (18/18 HOLES OPEN,) FINAL ISIP = 4228 #, FINAL FG = 0.81 , MAX PSI = 8569 #, MAX RATE = 50.1 BPM, AVERAGE PSI = 6979 #, AVERAGE RATE 47.9= BPM, NET PRESSURE INCREASE = -312#, SCREEN OFF AT 53734# OF SAND, RESTART PUMP, PUMP AT 30 BBL / MIN FLUSH SAND AWAY, X- OVER TO WIRE LINE PERF STG #2] P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 11450', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #2] WHP = 2937#, BRK DN PERFS = 5048 #, @ = 5 BPM, ISIP = 4276 #, FG = 0.82, CALC PERF OPEN @ 51.6 BPM, @ 7115 PSI = 100 %, (24/24 HOLES OPEN) FINAL ISIP = 4276 #, FINAL FG = 0.82, MAX PSI = 8246 #, MAX RATE = 52.5 #, AVERAGE PSI = 6832 #, AVERAGE RATE = 51.5 BPM, NET PRESSURE INCREASE = -57 #, pump 125 bbl sweep, cut sand short by 13,800#, X -OVER TO WIRE LINE PERF STG #3] P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ 11273 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #3] WHP = 3560#, BRK DN PERFS = 4178 #, @ = 6.6 BPM, ISIP = 3627 #, F.G = 0.76 , CALC PER OPEN @ 51.5 BPM @ 6833 # PSI = 100 %, (24/24 HOLES OPEN) FINAIL ISIP = 4207 #, FINIAL F.G. = 0.81 , NET PRESSURE INCREACE = 570 #, MAX PSI = 7537 #, MAX RATE = 52.5 BPM, AVERAGE PSI = 6750 #, AVERAGE RATE = 51.4 BPM X -OVER TO WIRE LINE PERF STG #4] P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 10498', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 10/17/2012		End Date: 10/18/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								FRAC STG #4] WHP = 2083 #, BRK DN PERFS = 7815#, @ = 4.8 BPM, ISIP = 3317 #, FG= 0.76 , CALC PERF OPEN @ 53.7 BPM @ 6167 PSI = 100 %, (21/21 HOLES OPEN, FINAL ISIP = 3539 #, FINAL FG = 0.78 , NET PRESSURE INCREASE = 222 #, MAX PSI = 8525 #, MAX RATE = 54.2 BPM, AVERAGE PSI = 6330 #, AVERAGE RATE = 52.9 BPM, X -OVER TO WIRE LINE PERF STG #5] P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 9941', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #5] WHP = 1638 #, BRK DN PERFS = 7754 #, @ = 4.7 BPM, ISIP = 2638 #, F G = 0.71 , CALC PERF OPEN @ 53.8 BPM @ 6480 PSI = 79 %, (19/24 HOLES 0PEN) FINAL ISIP = 3212 #, FINAL F G = 0.77 , NET PRESSURE INCREASF = 574 #, MAX PSI = 8007 #, MAX RATE = 55.6 BPM, AVERAGE PSI = 5951 #, AVERAGE RATE = 53.6 BPM, X -OVER TO WIRE LINE PERF STG #6] P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 9663', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP = 2690 #, BRK DN PERFS = 7943 #, @ 4.7 BPM, ISIP = 2808 #, F G = 0.73 , CALC PERF OPEN @ 54.3 BPM @ 5838 PSI = 100 %, (24/24 HOLES OPEN,) FINAL ISIP =1740 # FINAL F G = 0.75 , NET PRESSURE INCREASE = 174 PSI. MAX PSI = 7946 #, MAX RATE = 54.6 BPM, AVERAGE PSI = 5425 #. AVERAGE RATE = 54.3 BPM, X OVER TO WIRE LINE KILL PLUG) RIH W/ HALLIBURTON 8K CBP, SET CBP @ 9400', R/D WIRELINE AND FRAC CREW, TOTAL WATER = 13,036 BBLS TOTAL SAND = 272098 #
10/17/2012	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= PU TUBING
	7:15 - 11:00	3.75	DRLOUT	30		P		MOVE RIG IN FROM UP ROAD RU RIG ND FRAC VALVES NU 10K STACK RU FLOOR & TUBING EQUIP CHANGE VALVE ON BOPS FOUND TO BE WASHED OUT
	11:00 - 11:00	0.00	DRLOUT	30		P		TALLY & PU TUBING TAG KILL PLG @ 9400' W/ 279 JNTS CHANGE BOPS RU DRILLING EQUIP PREP TO D/O IN AM SIW SDFN
10/18/2012	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= DRILLING PLUGS

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 10/17/2012		End Date: 10/18/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	30		P		NU RIG PUMP EST CIRC TEST BOPS TO 3000# DRILL THRU 1ST CBP PLUG #1] DRILL THRU HALLI 8K CBP @ 9400' IN 11 MIN W/ 200# INCREASE PLUG #2] CONTINUE TO RIH TAG SAND @ 9633' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 9663' IN 9 MIN W/ 150# INCREASE PLUG #3] CONTINUE TO RIH TAG SAND @ 9916' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 9941' IN 6 MIN W/ 100# INCREASE PLUG #4] CONTINUE TO RIH TAG SAND @ 10468' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 10498' IN 10 MIN W/ 100# INCREASE PLUG #5] CONTINUE TO RIH TAG SAND @ 11248' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 11273' IN 8 MIN W/ 100# INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 11430' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 11450' IN 9 MIN W/ 100# INCREASE PBTD] CONTINUE TO RIH TAG SAND @ 11560' (30' FILL) C/O TO PBTD @ 11590' CIRC CLEAN POOH LD 11 JNTS LAND TUBING ON HNGR W/ 355 JNTS 2-3/8" P-110 EOT @ 11246' ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT @3700 PSI NU & TEST FLOWLINE TURN WELL OVER TO FBC TUBING DETAIL K.B.....19.00 ' HANGER.....83" 355 JNTS 2-3/8" P-110.....11224.61' POBS.....2.20 ' EOT@.....11246.64 ' TOTAL FL PUMPED= 13063 BBLS RIG REC= 3000 BBLS LEFT TO REC= 10063 BBLS TUBING DEL= 377 JNTS RIG USED= 355 JNTS RETURNED= 22 JNTS
	17:00 - 17:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1345 HR ON 10/18/2012 1,300 MCFD, 1920 BWPD, FCP 3100#, FTP 2900#, 20/64" CK.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-8D			Spud Date: 4/19/2012
Project: UTAH-UINTAH	Site: NBU 921-8D		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 10/17/2012		End Date: 10/18/2012
Active Datum: RKB @4,687.00usft (above Mean Sea Level)	UWI: NW/NW/0/9/S/21/E/8/0/0/26/PM/N/469/W/0/652/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/23/2012	7:00 -			50				WELL IP'D ON 10/23/12 - 3175 MCFD, 521 BWPD, 0 BOPD, CP 3141#, FTP 2278#, LP 254#, 24 HRS, CK 20/64

Scientific Drilling

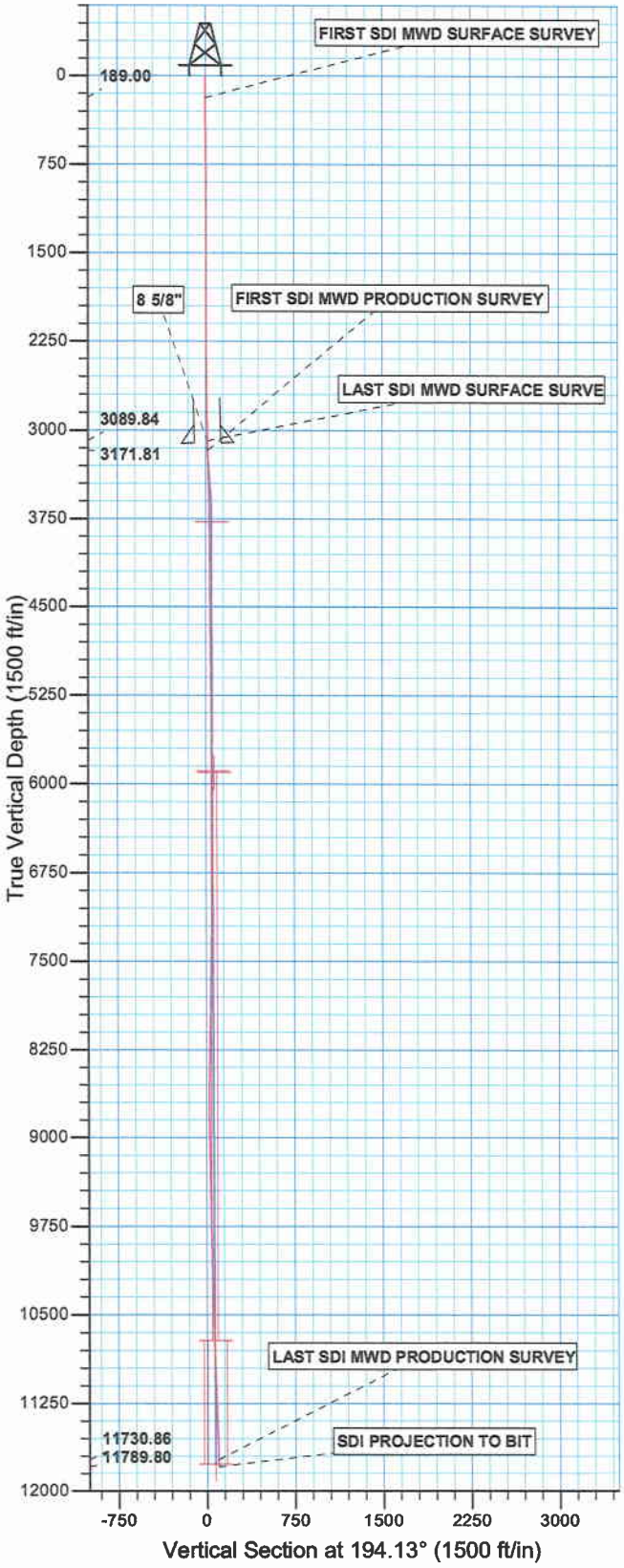
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 921-8D
Well: NBU 921-8D
Wellbore: OH
Design: OH

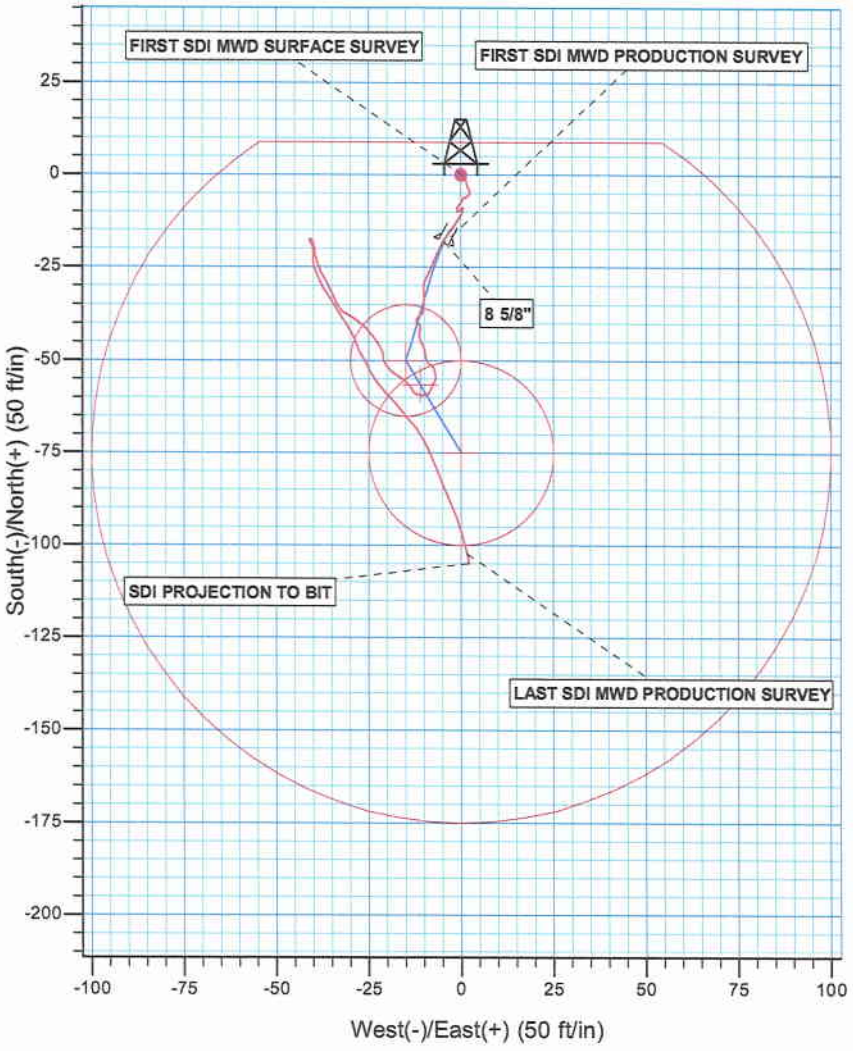
Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-8D					
GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14549815.48	2037197.04	40.056603	-109.582076

Azimuths to True North
Magnetic North: 11.01°

Magnetic Field
Strength: 52267.5snT
Dip Angle: 65.88°
Date: 04/16/2012
Model: IGRF2010





PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 8 T9S R21E
System Datum:	Mean Sea Level

Design: OH (NBU 921-8D/OH)

Created By: Gabe Kendall Date: 9:29, September 07 2012

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 921-8D
NBU 921-8D

OH

Design: OH

Standard Survey Report

07 September, 2012

Anadarko
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-8D
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Site:	NBU 921-8D	**MD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Well:	NBU 921-8D	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-8D, SECTION 8 T9S R21E				
Site Position:		**Northing:**	14,549,815.47 usft	**Latitude:**	40.056603
From:	Lat/Long	**Easting:**	2,037,197.04 usft	**Longitude:**	-109.582076
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.91 °

Well	NBU 921-8D, 469 FNL 652 FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,549,815.47 usft	**Latitude:**	40.056603
	+E/-W	0.00 ft	**Easting:**	2,037,197.04 usft	**Longitude:**	-109.582076
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,668.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	04/16/12	11.01	65.88	52,267

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	194.13	

Survey Program **Date** 09/07/12

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
15.00	3,090.00	Survey #1 SDI MWD SURVEY (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
3,172.00	11,793.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
189.00	0.44	102.59	189.00	-0.15	0.65	-0.02	0.25	0.25	0.00
FIRST SDI MWD SURFACE SURVEY									
276.00	0.35	152.42	276.00	-0.45	1.10	0.17	0.39	-0.10	57.28
359.00	0.79	179.05	358.99	-1.25	1.23	0.91	0.61	0.53	32.08
450.00	0.53	160.16	449.99	-2.27	1.38	1.87	0.37	-0.29	-20.76
540.00	0.79	155.32	539.98	-3.23	1.78	2.70	0.30	0.29	-5.38
630.00	0.79	146.27	629.97	-4.31	2.39	3.60	0.14	0.00	-10.06
720.00	0.79	219.13	719.97	-5.31	2.34	4.58	1.04	0.00	80.96

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-8D
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Site:	NBU 921-8D	**MD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Well:	NBU 921-8D	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
810.00	0.53	246.82	809.96	-5.95	1.56	5.39	0.45	-0.29	30.77
900.00	0.26	262.29	899.96	-6.14	0.98	5.72	0.32	-0.30	17.19
990.00	0.52	217.40	989.96	-6.49	0.53	6.17	0.43	0.29	-49.88
1,080.00	0.70	201.29	1,079.95	-7.33	0.08	7.09	0.27	0.20	-17.90
1,170.00	0.70	229.50	1,169.94	-8.20	-0.54	8.08	0.38	0.00	31.34
1,260.00	0.26	209.11	1,259.94	-8.74	-1.05	8.73	0.52	-0.49	-22.66
1,350.00	0.53	165.87	1,349.94	-9.32	-1.05	9.29	0.43	0.30	-48.04
1,440.00	0.35	104.70	1,439.94	-9.79	-0.68	9.66	0.53	-0.20	-67.97
1,530.00	0.26	284.17	1,529.94	-9.81	-0.62	9.67	0.68	-0.10	199.41
1,620.00	0.07	172.44	1,619.94	-9.82	-0.81	9.72	0.33	-0.21	-124.14
1,710.00	0.24	238.33	1,709.93	-9.97	-0.96	9.90	0.25	0.19	73.21
1,800.00	0.53	43.97	1,799.93	-9.77	-0.83	9.68	0.85	0.32	184.04
1,890.00	0.32	62.68	1,889.93	-9.35	-0.32	9.15	0.28	-0.23	20.79
1,980.00	0.20	64.51	1,979.93	-9.17	0.05	8.88	0.13	-0.13	2.03
2,070.00	0.26	59.44	2,069.93	-9.00	0.36	8.64	0.07	0.07	-5.63
2,160.00	0.10	1.49	2,159.93	-8.82	0.54	8.42	0.25	-0.18	-64.39
2,250.00	0.00	231.70	2,249.93	-8.74	0.54	8.34	0.11	-0.11	0.00
2,340.00	0.18	159.98	2,339.93	-8.87	0.59	8.46	0.20	0.20	0.00
2,430.00	0.29	175.39	2,429.93	-9.23	0.66	8.79	0.14	0.12	17.12
2,520.00	0.44	211.13	2,519.93	-9.75	0.50	9.34	0.30	0.17	39.71
2,610.00	0.70	209.20	2,609.92	-10.53	0.05	10.20	0.29	0.29	-2.14
2,700.00	0.70	201.55	2,699.92	-11.52	-0.42	11.27	0.10	0.00	-8.50
2,790.00	0.87	208.98	2,789.91	-12.63	-0.95	12.48	0.22	0.19	8.26
2,880.00	1.14	222.38	2,879.89	-13.89	-1.89	13.93	0.40	0.30	14.89
2,970.00	1.32	215.44	2,969.87	-15.39	-3.09	15.68	0.26	0.20	-7.71
3,060.00	1.27	208.15	3,059.85	-17.12	-4.16	17.62	0.19	-0.06	-8.10
3,090.00	1.35	203.92	3,089.84	-17.74	-4.46	18.29	0.42	0.27	-14.10
LAST SDI MWD SURFACE SURVE									
3,172.00	1.58	214.43	3,171.82	-19.55	-5.49	20.30	0.43	0.28	12.82
FIRST SDI MWD PRODUCTION SURVEY									
3,266.00	1.67	201.65	3,265.78	-21.89	-6.73	22.87	0.40	0.10	-13.60
3,362.00	1.85	202.39	3,361.73	-24.63	-7.84	25.79	0.19	0.19	0.77
3,457.00	1.93	208.72	3,456.68	-27.45	-9.19	28.86	0.24	0.08	6.66
3,551.00	0.53	184.82	3,550.66	-29.27	-9.99	30.82	1.55	-1.49	-25.43
3,646.00	1.06	176.38	3,645.65	-30.58	-9.97	32.09	0.57	0.56	-8.88
3,742.00	1.23	182.09	3,741.63	-32.50	-9.95	33.94	0.21	0.18	5.95
3,837.00	0.18	41.38	3,836.62	-33.41	-9.89	34.81	1.45	-1.11	-148.12
3,933.00	0.26	203.71	3,932.62	-33.49	-9.88	34.89	0.45	0.08	169.09
4,028.00	0.53	185.78	4,027.62	-34.13	-10.01	35.54	0.31	0.28	-18.87
4,122.00	0.79	177.46	4,121.61	-35.21	-10.02	36.59	0.29	0.28	-8.85
4,217.00	1.23	192.81	4,216.60	-36.85	-10.22	38.23	0.54	0.46	16.16
4,312.00	0.53	334.58	4,311.59	-37.45	-10.64	38.92	1.77	-0.74	149.23
4,407.00	0.44	187.36	4,406.59	-37.42	-10.87	38.94	0.98	-0.09	-154.97

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-8D
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Site:	NBU 921-8D	**MD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Well:	NBU 921-8D	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,501.00	0.53	243.00	4,500.59	-37.97	-11.30	39.58	0.49	0.10	59.19
4,596.00	1.06	198.97	4,595.58	-39.00	-11.98	40.75	0.81	0.56	-46.35
4,691.00	0.26	44.72	4,690.57	-39.68	-12.12	41.44	1.37	-0.84	-162.37
4,786.00	0.18	87.96	4,785.57	-39.52	-11.81	41.21	0.19	-0.08	45.52
4,881.00	1.06	153.63	4,880.57	-40.30	-11.28	41.84	1.05	0.93	69.13
4,976.00	0.62	199.32	4,975.56	-41.58	-11.06	43.02	0.81	-0.46	48.09
5,071.00	1.40	183.96	5,070.54	-43.22	-11.31	44.67	0.86	0.82	-16.17
5,166.00	0.44	132.92	5,165.53	-44.63	-11.12	45.99	1.24	-1.01	-53.73
5,261.00	0.85	152.40	5,260.52	-45.50	-10.52	46.69	0.48	0.43	20.51
5,356.00	1.23	161.70	5,355.51	-47.09	-9.88	48.08	0.44	0.40	9.79
5,451.00	1.49	177.96	5,450.48	-49.29	-9.51	50.12	0.49	0.27	17.12
5,546.00	0.49	114.47	5,545.47	-50.70	-9.10	51.38	1.42	-1.05	-66.83
5,641.00	0.52	121.20	5,640.47	-51.09	-8.36	51.58	0.07	0.03	7.08
5,736.00	0.84	150.44	5,735.46	-51.92	-7.65	52.21	0.49	0.34	30.78
5,831.00	0.97	165.48	5,830.45	-53.30	-7.10	53.42	0.28	0.14	15.83
5,926.00	0.70	183.32	5,925.44	-54.66	-6.94	54.70	0.39	-0.28	18.78
6,021.00	0.53	207.32	6,020.43	-55.63	-7.17	55.70	0.32	-0.18	25.26
6,115.00	0.97	208.90	6,114.42	-56.71	-7.76	56.89	0.47	0.47	1.68
6,210.00	1.41	197.74	6,209.40	-58.53	-8.50	58.83	0.52	0.46	-11.75
6,305.00	1.06	284.92	6,304.39	-59.42	-9.71	59.99	1.81	-0.37	91.77
6,400.00	0.92	254.15	6,399.37	-59.40	-11.29	60.36	0.57	-0.15	-32.39
6,496.00	1.14	329.75	6,495.36	-58.78	-12.51	60.06	1.33	0.23	78.75
6,590.00	1.71	318.24	6,589.33	-56.93	-13.92	58.60	0.68	0.61	-12.24
6,684.00	1.23	318.15	6,683.30	-55.13	-15.52	57.25	0.51	-0.51	-0.10
6,779.00	1.32	282.75	6,778.28	-54.13	-17.27	56.71	0.82	0.09	-37.26
6,875.00	1.34	329.82	6,874.26	-52.92	-18.91	55.93	1.11	0.02	49.03
6,970.00	1.23	311.53	6,969.23	-51.28	-20.24	54.67	0.44	-0.12	-19.25
7,064.00	1.06	352.16	7,063.22	-49.75	-21.11	53.40	0.86	-0.18	43.22
7,159.00	1.04	359.67	7,158.20	-48.02	-21.23	51.75	0.15	-0.02	7.91
7,254.00	1.88	322.99	7,253.17	-45.91	-22.18	49.93	1.28	0.88	-38.61
7,349.00	2.00	322.72	7,348.12	-43.35	-24.12	47.92	0.13	0.13	-0.28
7,444.00	1.42	316.49	7,443.07	-41.17	-25.93	46.26	0.64	-0.61	-6.56
7,538.00	1.66	304.24	7,537.04	-39.56	-27.86	45.17	0.43	0.26	-13.03
7,634.00	1.51	306.10	7,633.00	-38.04	-30.03	44.22	0.17	-0.16	1.94
7,729.00	1.14	286.15	7,727.98	-37.04	-31.95	43.71	0.62	-0.39	-21.00
7,823.00	2.30	337.17	7,821.94	-35.04	-33.58	42.17	1.93	1.23	54.28
7,918.00	2.29	334.05	7,916.86	-31.57	-35.15	39.20	0.13	-0.01	-3.28
8,013.00	1.85	329.22	8,011.80	-28.55	-36.77	36.66	0.50	-0.46	-5.08
8,108.00	1.67	331.86	8,106.75	-26.01	-38.21	34.55	0.21	-0.19	2.78
8,203.00	1.49	348.47	8,201.72	-23.58	-39.10	32.41	0.52	-0.19	17.48
8,297.00	0.97	348.12	8,295.70	-21.60	-39.51	30.59	0.55	-0.55	-0.37
8,392.00	1.08	352.75	8,390.68	-19.93	-39.79	29.04	0.14	0.12	4.87
8,486.00	0.79	349.26	8,484.67	-18.41	-40.02	27.62	0.31	-0.31	-3.71
8,581.00	0.62	308.13	8,579.66	-17.45	-40.55	26.82	0.55	-0.18	-43.29

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-8D
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Site:	NBU 921-8D	**MD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Well:	NBU 921-8D	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,677.00	0.26	205.03	8,675.66	-17.33	-41.05	26.82	0.75	-0.38	-107.40
8,772.00	0.44	158.40	8,770.66	-17.86	-41.01	27.33	0.34	0.19	-49.08
8,866.00	0.53	150.98	8,864.66	-18.58	-40.66	27.94	0.12	0.10	-7.89
8,961.00	0.53	152.65	8,959.65	-19.35	-40.25	28.59	0.02	0.00	1.76
9,056.00	0.79	179.81	9,054.65	-20.40	-40.05	29.56	0.42	0.27	28.59
9,151.00	0.97	182.71	9,149.63	-21.86	-40.08	30.98	0.20	0.19	3.05
9,245.00	1.23	171.10	9,243.62	-23.65	-39.96	32.69	0.36	0.28	-12.35
9,340.00	1.32	164.16	9,338.59	-25.71	-39.51	34.57	0.19	0.09	-7.31
9,435.00	1.49	158.45	9,433.56	-27.91	-38.75	36.52	0.23	0.18	-6.01
9,530.00	1.78	148.69	9,528.53	-30.32	-37.53	38.56	0.42	0.31	-10.27
9,625.00	1.42	147.51	9,623.49	-32.57	-36.13	40.41	0.38	-0.38	-1.24
9,720.00	1.44	139.75	9,718.46	-34.48	-34.73	41.91	0.20	0.02	-8.17
9,815.00	1.29	155.62	9,813.43	-36.36	-33.52	43.44	0.43	-0.16	16.71
9,910.00	1.28	138.15	9,908.41	-38.13	-32.37	44.87	0.41	-0.01	-18.39
10,005.00	1.32	153.97	10,003.39	-39.90	-31.18	46.30	0.38	0.04	16.65
10,100.00	1.77	145.71	10,098.35	-42.10	-29.87	48.11	0.53	0.47	-8.69
10,194.00	1.58	167.33	10,192.31	-44.56	-28.77	50.23	0.70	-0.20	23.00
10,289.00	2.02	150.45	10,287.26	-47.29	-27.66	52.61	0.72	0.46	-17.77
10,384.00	1.98	153.31	10,382.21	-50.22	-26.10	55.07	0.11	-0.04	3.01
10,478.00	2.11	150.63	10,476.15	-53.18	-24.52	57.55	0.17	0.14	-2.85
10,573.00	2.18	144.10	10,571.08	-56.16	-22.60	59.98	0.27	0.07	-6.87
10,668.00	2.37	135.77	10,666.01	-59.03	-20.17	62.17	0.40	0.20	-8.77
10,763.00	2.36	138.36	10,760.93	-61.90	-17.50	64.30	0.11	-0.01	2.73
10,857.00	2.73	141.22	10,854.83	-65.09	-14.81	66.74	0.42	0.39	3.04
10,952.00	2.37	140.61	10,949.74	-68.38	-12.15	69.27	0.38	-0.38	-0.64
11,047.00	2.29	155.20	11,044.66	-71.62	-10.11	71.92	0.63	-0.08	15.36
11,142.00	2.64	155.20	11,139.57	-75.33	-8.39	75.10	0.37	0.37	0.00
11,235.00	2.81	158.45	11,232.47	-79.39	-6.66	78.62	0.25	0.18	3.49
11,330.00	2.55	161.52	11,327.36	-83.56	-5.13	82.29	0.31	-0.27	3.23
11,425.00	3.04	152.18	11,422.25	-87.79	-3.29	85.94	0.70	0.52	-9.83
11,520.00	2.76	162.46	11,517.13	-92.20	-1.42	89.76	0.62	-0.29	10.82
11,615.00	3.08	160.21	11,612.01	-96.79	0.13	93.83	0.36	0.34	-2.37
11,734.00	2.55	169.61	11,730.86	-102.40	1.69	98.89	0.59	-0.45	7.90
LAST SDI MWD PRODUCTION SURVEY									
11,793.00	2.55	169.61	11,789.80	-104.98	2.16	101.28	0.00	0.00	0.00
SDI PROJECTION TO BIT									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,108.00	3,107.84	8 5/8"	8.625	11.000

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-8D
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Site:	NBU 921-8D	**MD Reference:**	GL 4558 & KB 19 @ 4687.00ft (PIONEER 54)
Well:	NBU 921-8D	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
189.00	189.00	-0.15	0.65	FIRST SDI MWD SURFACE SURVEY
3,090.00	3,089.84	-17.74	-4.46	LAST SDI MWD SURFACE SURVE
3,172.00	3,171.82	-19.55	-5.49	FIRST SDI MWD PRODUCTION SURVEY
11,734.00	11,730.86	-102.40	1.69	LAST SDI MWD PRODUCTION SURVEY
11,793.00	11,789.80	-104.98	2.16	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____